MSS. and other Communications for the Editor should be addressed to G. E. MOORE, Litt.D., 17 Magdalene Street, Cambridge

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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

EDITED BY

G. E. MOORE,

WITH THE CO-OPERATION OF PROFESSOR PRINGLE-PATTISON, PROFESSOR C. D. BROAD, AND F. C. BARTLETT, M.A.

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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—THE PHILOSOPHICAL RESEARCHES OF MEINONG (I.).

BY G. DAWES HICKS.

I HAVE undertaken to give some account in this Journal of Meinong's contributions to philosophy. It was a rash undertaking. For the task is one of peculiar difficulty. Had Meinong made any attempt to think out or develop a comprehensive metaphysical theory, it would have been comparatively easy to sketch the main features of that theory, and perhaps to indicate where it seemed exposed to attack. But his speculative genius lay not in the direction of system-building; and I suspect he distrusted the attitude of mind which system-building frequently betokens. His published work, and it is amazingly voluminous, is all of it of an extremely detailed kind; its value largely consists in its resolute thoroughness, in the rare combination it shows of unprejudiced observation with acute inference, and in the minute care with which he tried to see all round and to get to the roots of the problems he handled. Moreover, the themes he selected for treatment were almost always those at the growing-point of philosophical inquiry; he had an extraordinary facility of discerning precisely that which required to be wrestled with in order to make headway in philosophical research. As a writer he was lucid and clear; but his very persistency in tracking a subject through its ramifications gives to his mode of exposition a certain prolixity, which those who like to have their philosophy served up to them in imagery and metaphor will be ready enough to decry as dulness. Yet his intellectual honesty in describing the data with

which he was concerned, his subtlety of analysis, his keenness of criticism are sufficiently exemplified in everything he wrote.

In spite, however, of its difficulties, there is more need of such a task as has been set for me being undertaken in the case of Meinong's work than in the case of that of most philosophers. For it is true to say that the different investigations upon which he was engaged, independent of one another though at first sight they appear to be, are not in fact unrelated, and that his various lines of reflexion have principles in common which it would certainly be worth while to drag to light. I can hardly hope to succeed in doing so; but I may perhaps contrive to furnish such an outline of Meinong's ways of thinking as may be serviceable to those who have not as yet made acquaintance with his writings. Of their importance no one who is familiar with them can be in doubt; they are important as profound inquiries into the most fundamental of philosophical questions; they are important no less as illustrating the method by which philosophic truth is won.

By way of preface, I prefix a few words of biographical import. Alexius Meinong was born at Lemberg on 17th July, 1853. His family was of German extraction, and his father had settled on Polish soil on account of his professional duties. Meinong's student years were all spent in Vienna. After being six years at a private school there, he became a scholar of the academic gymnasium; and it was due in particular to two of his teachers in the latter institution that, contrary to the original plan of his parents, who had destined him for the law, and despite a strong inclination on his own part to devote himself to music, he decided in the end upon a scientific career. He entered the University in the autumn of 1870, matriculating in the Faculty of History. In the summer of 1874 he took his degree, having submitted for it a dissertation on Arnold of Brescia. From his gymnasium days he had, however, imbibed an interest in philosophy; and he chose philosophy as his *Nebenfach*, offering himself for examination in the first two of Kant's *Critiques* which, in blissful ignorance of their pitfalls, he had striven to master by his own unaided reading. The results of his criticism of Kant, animated, he tells us, by a very naïve radicalism, must, he confesses, have been primitive enough; but, without suspecting it, he had thus commenced his life's work. For a while he attended lectures on law; but early in 1875 he resolved to give himself entirely to philosophy. He sought naturally the guidance of Brentano, then at the height of his influence. That guidance was unstintingly placed at

his disposal; and Meinong never ceased to speak in the warmest terms of his indebtedness to his teacher,[1] although he had occasion to disclaim the description of himself and Ehrenfels as belonging to the Brentano school. The first of the *Hume-Studien* was the outcome of a line of investigation which Brentano proposed to him; and it served as *Habilitationsschrift* by which he became a *Privatdozent* in the Philosophical Faculty of Vienna in 1878. In that capacity he continued in Vienna four more years, during which period Höfler, Ehrenfels and Oelzelt-Newin were his pupils. He was appointed in the autumn of 1882 (when the second of the *Hume-Studien* was published) Professor extraordinarius of Philosophy at Graz; and in Graz he remained for the rest of his life, refusing repeated calls to larger fields of labour (such as Kiel in 1898 and Vienna in 1914), because it seemed to him that here he would best succeed in accomplishing the scientific work he had prescribed for himself. He started at the University in 1886, through apparatus provided by private means, experimental research in psychology; and in 1894 there was instituted in Graz the first psychological laboratory established in Austria. In the spring of 1889, Meinong was appointed Professor ordinarius; and in the autumn of that year he married. During the thirty years that followed, an extensive series of investigations occupied his activity—investigations some of which had to do with fundamental epistemological issues, others that were of a psychological nature, and others again which belonged to the field of ethics, more especially to the theory of value, to which his yearly recurring lectures on practical philosophy had, in a certain measure, afforded the stimulus. Only by degrees (scarcely, he tells us, before 1900) did he come to realise that in all these researches he had been moving in a direction which was new and of vital philosophical significance. To the bulky volume that was issued in 1904 in celebration of the tenth anniversary of the Graz psychological laboratory, Meinong contributed an introductory essay in which he definitely formulated, and endeavoured to determine the scope of, what seemed to him entitled to be called a distinct department of philosophical science, clearly demarcated from either metaphysics, or epistemology, or logic, or psychology; and to it he gave the name of *Gegenstandstheorie*. After

[1] For instance, in the last of his publications, he wrote: "Was etwa das Leben nicht mehr zu schlichten vermochte, das hat der Tod geschlichtet, und vor dem Auge meiner Erinnerung steht als unverlierbarer Besitz, wie einst, die Lichtgestalt meines verehrten Lehrers in durchgeistigter Schönheit, übergoldet durch den Sonnenglanz seiner und meiner Jugend".

1904, much of his strength was concentrated upon what he regarded as problems of this new field of inquiry, and upon urging its claims to recognition. In 1914, he was elected a member of the Austrian *Academie der Wissenschaften* (he had been a corresponding member since 1906); and to its *Proceedings* several of his latest papers were contributed.[1] He died at the age of sixty-seven on 27th November, 1920, of an ailment which for months he had patiently borne, continuing his academic and scientific labours until a few days from the end.

I.

One of Meinong's early writings[2] was partly devoted to a discussion of the nature and aims of philosophical inquiry and the position of philosophy in respect to the other sciences. Without unnatural limitation, he had there contended, philosophy cannot be taken to denote a single comprehensive science. It indicates rather a whole group of sciences, linked together by a common characteristic. And the characteristic in question is, he urged, that of being concerned, either exclusively or at least in certain essential respects, with inner experiences. Not only psychology itself, but likewise epistemology and logic, ethics and æsthetics, can readily be brought under this point of view, embarrassing though it may be to find an exact formula for the connectedness which is thus implied. Even metaphysics, in virtue of the very generality of its subject-matter, is constrained to bring non-psychical into relationship with psychical facts, in order to maintain an independent position alongside of the natural sciences.

It might seem, then, as though Meinong were here assigning to psychology a dominant position among the parts of philosophy as a whole; and so in a manner he was. Any attempt to proceed in philosophical reflexion by leaving out of account the consideration of psychical processes is in itself, he argued, a sufficiently convincing demonstration of the inherent unnaturalness of such an endeavour, and no metaphysic elaborated without regard to psychological research

[1] Apart from the scattered papers now collected together in the *Gesammelte Abhandlungen* (of which at the time of writing two out of the three contemplated volumes have appeared), the following are Meinong's chief publications: *Psychologisch-ethische Untersuchungen zur Werttheorie* (1894); *Ueber Annahmen* (1902; a second and greatly altered edition in 1910); *Ueber die Erfahrungsgrundlagen unseres Wissens* (1906); *Ueber Möglichkeit und Wahrscheinlichkeit* (1915).

[2] *Ueber Philosophische Wissenschaft und ihre Propädeutik*, 1885.

and its results can be expected to stand.[1] Such was his contention to the last. But, as time went on, he came to draw a very sharp line of demarcation between psychology and psychologism, and to express himself as virtually in accord with Husserl's well-known polemic against the latter in the *Logische Untersuchungen*. Within the circle of a certain set of problems, it is, Meinong declared, sufficiently easy to see what is meant by the term psychologism; it simply means psychological methods of treatment in the wrong place. Since knowing is a mode of experience (*ein Erlebnis*), epistemology cannot wholly dispense with psychological methods. Yet over against the act of knowing stands the known; knowledge, in other words, has a double-sided aspect; and whoever pursues an epistemological inquiry as though there were only the psychical aspect of knowledge, or persists in forcing the other aspect under the point of view of psychical event or occurrence, cannot escape the reproach which the term psychologism carries with it.

Nevertheless, I am inclined to believe that Meinong exposed himself to not a little misunderstanding by adhering as he did throughout to that early contention of his that in psychology is to be discerned the thread, so to speak, which binds the different parts of philosophy into such whole as they constitute. For he scarcely meant to imply more by the contention than that in the notion of *knowledge* is to be found the link of connexion between the several branches of philosophy, theoretical or practical. In other words, what, in truth, he was saying was that there is not one group of objects specifically entitled to be called the subject-matter of philosophy; but that any part or the whole of what is vaguely described as the field of experience may be handled philosophically if treated from the point of view of its relation to the human thinking subject. What light can it throw on the relations in which the human mind stands to the surrounding reality?—such was the fundamental question which philosophy has addressed to it. And, then, the special branches of philosophy would seem to be determined by the main differences of a general kind which disclose themselves in those relations. These differences would, for example, be not inappropriately classified under the three heads: (*a*) cognitive, (*b*) practical, and (*c*) æsthetic. So conceived, it is

[1] On the other hand, he was equally strenuous in maintaining that the psychology, be it never so experimental, which ruthlessly brushes epistemological and other philosophical considerations aside is bound to become entangled in crudities and absurdities, which, in the long run, will mean its undoing.

obvious that the treatment of knowledge in all its aspects must form the central portion of philosophical science. For it is only in and through the process of knowing that the human mind has a place at all in the scheme of existence; and, although the practical and æsthetic activities are distinguishable from the knowing activity, they nevertheless imply the latter as an essential condition of their possibility. Clearly, the investigation of knowledge divides into two diverging lines of inquiry, according as it turns upon the question as to the validity of knowledge or upon the question as to the way in which knowing comes forward as a natural process in the life of the individual mind. Furthermore, inasmuch as in both these paths of inquiry the antithesis between the subjective and the objective presents itself, yielding, in the one case, the problem of what meanwhile may be described as that of the 'correspondence' of our thinking with reality, and, in the other case, that of the way in which our mental processes are occasioned or influenced by external conditions, the final issue is bound to be raised which has been traditionally designated metaphysical. That issue may perhaps be expressed thus: What conception of real fact are we led to form in order to render intelligible, on the one hand, the attainment of truth by human thinking, and, on the other hand, the conjoint co-operation of mental and external conditions in the natural world?

Such, at any rate, in broad outline, is what I take to have been the essence of Meinong's view in respect to the function and scope of the philosophical sciences. Most of his publications between the years 1882 and 1904 had to do with questions which could not be exhaustively dealt with either from the point of view of psychology alone or from that of epistemology alone. And Meinong came gradually to see how both modes of investigation could be combined, and combined without committing the blunder, which can only lead to hopeless confusion, of prematurely mixing up the two methods and of drawing upon the one while ostensibly engaged in carrying on an inquiry under the other.

II.

It was a fortunate circumstance that Meinong had been induced to devote himself, at the beginning of his career, to a thorough study of Hume's theory of knowledge. The outcome of his patient examination of that theory was not only a valuable piece of genuine philosophical criticism; it was also a clear discernment of the exact points in regard to which

the adequacy of the empirical doctrine could best be tested. The *Hume-Studien* disclose, in fact, the way in which the crucial problems of knowledge originally shaped themselves for Meinong; it is, therefore, advisable to look at these *Studien* somewhat in detail.

The first of them (published in 1877) is concerned with abstract ideas and the process of generalising. The treatment of the matter by Berkeley and Hume is submitted to a scrutiny far more searching and penetrating than that which T. H. Green, in his elaborate *Introduction*, had brought to bear. Attention is drawn, for example, to the totally different senses in which Berkeley employs the term "sign" when dealing with ideas and words respectively and to the fact that he leaves entirely unanswered the important question, how a general *name* is related to a general *notion*. Berkeley, it is argued, ought to have seen that he had not disposed of abstract ideas by disposing of Locke's account of their mode of origin; for the very concessions he makes, obviously inconsequences in his exposition as it stands, would, if they had been followed up, have forced him to that conclusion. Indeed, in more than one place, Berkeley, it is pointed out, was on the verge of a psychological theory that could have been substituted for Locke's, in so far as he laid stress upon the consideration that in observing an individual fact it lies within our power to concentrate *attention* upon certain of its characteristics, and that thus its remaining characteristics are disregarded. Hume, it is shown, completely misconceived what he described as "one of the greatest and most valuable discoveries" made in his time "in the republic of letters". But the nominalistic view, which he erroneously took to be Berkeley's, *was* the view which he himself tried to put "beyond all doubt and controversy"; and, by examining in turn each of the negative and positive arguments employed in the *Treatise* for this purpose, Meinong exhibits, in a convincing manner, the failure of that attempt.

As regards the negative arguments, the very formulation of the thesis they are advanced to support is, Meinong bids us observe, in itself extraordinary. While Hume's intention is admittedly to deny *all* abstraction, what he actually tries to prove is that "the mind cannot form any notion of quantity or quality without forming a precise notion of degrees of each," as though it were not evident, on the face of it, how many of the cases usually taken to be cases of abstraction are thereby left out of account. But, waiving this objection, no one of the three arguments by which the thesis was to be put beyond the range of controversy will bear

examination. Take, for instance, the third of them. It will be granted, Hume avers, that everything in nature is individual, and that it would be absurd to suppose a really existtent triangle which was without definite dimensions. And if this be absurd in reality, it must also be absurd in idea. Again, "to form the idea of an object, and to form an idea simply, is the same thing." If, then, it be impossible to form an idea of an object that is not possessed of definite quantitative and qualitative degree, there must be an equal impossibility of forming an idea, that is not limited in both these particulars. Meinong has little trouble in convicting this argument of either a formal or a material fallacy; a formal fallacy, if by 'everything' be meant *jedes Ding*, for then the word 'object' is equivocal, since it is used both for an existent thing and for a content of presentation, a material fallacy, if by 'everything' be meant *alles*, for then it is false that everything in nature is individual. Furthermore, granted that it is absurd to suppose there can be a thing in nature without its definite degree of quality and quantity, granted that each thing must accordingly be perceived as in this respect a determinate thing, does it, then, in the least follow that each idea of that thing must necessarily represent all these determinations? An assumption of that sort would be no less ridiculous than to maintain that because an individual existent has an indefinitely large number of characteristics, the content of the notion of that existent must be indefinitely great. In short, an idea of an individual thing is far from being an individual idea; and yet except on the ground that the idea of an individual thing is an individual idea, no inference can be drawn from the individuality of things to the individuality of ideas.

The positive line of argument by which Hume sought to come to the assistance of what he took to be Berkeley's theory turns out, in Meinong's hands, to be no less unsatisfactory. First of all, he would have us notice the singular want of perspicuity characterising Hume's exposition. The problem is to explain how a particular idea attains in our reasoning an application such as it would have were it universal. The explanation offered is that we apply the same name to similar objects; and, when that custom has established itself, the hearing of the name revives the idea of one of these objects, the one which happens casually to make its appearance most readily. Yet what about the other ideas, likewise associated with the name? "They are," Hume replies "not really and in fact present to the mind, but only in power." But, asks Meinong, since when? Hume would appear to say, since

the act of mentioning the name. A disposition to revive the ideas in question must, however, surely have been previously there, if eventually, through aid of the word, they are reproducible. The situation becomes the more perplexing when Hume goes on to assert that the word raises up besides the idea a "certain custom," and that this custom produces any other individual idea, for which we may have occasion. Are we, then, here to understand by "custom" a permanent indispensable pre-condition of the last mentioned idea, and by "occasion" the immediate cause of its appearance? If so, the whole theory stands or falls with what can be made out with respect to this "occasion". Nevertheless, Hume vouchsafes no information as to whether such an "occasion" must always be present whenever we hear that word, nor is it easy to see wherein the necessity of its presence could be supposed to lie, although in its absence there can admittedly be no question of generality. Hume's lack of precision just where precision is necessary renders it difficult to come to close quarters with the theory itself; but the moment we try to do so it becomes manifest, Meinong urges, how little mere association without abstraction is able to achieve. We have before us, let us say, a round piece of paper or a mill-stone (seeing that, *ex hypothesi*, we cannot think of a circle *in abstracto*), and we call this "shape". Now, it can safely be affirmed that it would never occur to us, so soon as we happened to see a square corn-field, to call to mind that "shape" and to give the name "shape" likewise to the field. No doubt, if we were in a position to think of shape *in abstracto*, all would be plain sailing, but this is precisely what Hume is concerned to deny. Naturally, the difficulty becomes the more glaring the greater the generality attaching to the name. Moreover, as Hume himself points out, the same thing may be called by a great number of different names—*e.g.*, mill-stone, a round thing, a heavy thing, a material thing, etc. Yet he has offered no explanation of how, under such unfavourable circumstances, it comes about that even the slightest appreciable association between word and idea could be formed. Once more, and assuming meanwhile that objections such as the foregoing have been surmounted, no sooner is the effort made to see how 'general ideas,' formed in the manner supposed, function *in propositions* than the theory breaks down hopelessly. A proposition, such as "wolves are mammals," it would have to be said, is in the first instance an assertion about words; so far as actual things are concerned, the statement could only express the result of a perfectly general inference based on a similarity which association with the word "mammal" presupposed.

But, since the same objects are also associated with many other words—*e.g.*, organic being—nothing would be gained by the knowledge of that similarity. Finally, if account be taken of all that is usually included under the head of abstraction, the inadequacy of the doctrine becomes strikingly apparent. We speak often enough of family traits, of natural types, of a literary style, and so forth; and, in doing so, are referring to characteristics which several individuals have in common. The ideas of such attributes appear, therefore, as general notions, in regard to which scarcely any one would dispute that the common feature must first be recognised as such before a name can be given to it. Here, then, quite certainly the name acquires its generality through the notion, and not the notion through the name.

The two fundamental errors that, in Meinong's opinion, vitiate Hume's theory are (*a*) his failure to take account of the content or intension of a concept, and (*b*) his use of the doctrine of association to explain the way in which the concept acquires its extension or denotation. In ordinary usage, the terms general and particular have reference to the extension, and the terms abstract and concrete to the intension, of a concept. A concept that is or can be applied to many objects is general; a concept that is obtained by an act of abstraction is abstract. Every concrete object is an individual object. But the presentation of a concrete object includes only such characteristics as can be apprehended by sense at any one moment; consequently individual objects are known, for the most part, in a form that is more or less abstract. No doubt, it is as concrete that every empirical datum comes at first into consciousness; and, in so far, concrete data furnish the basis of knowledge. Knowledge, however, is primarily concerned not with presentations but with their objects. In knowing, we seek to liberate that which we take to be peculiar to the object from the contingent features introduced into it by the act of apprehending. So that almost always just that which makes the presentation concrete will fall away from it. It follows, therefore, so Meinong argues, that while all general notions are abstract, not all abstract notions are general. In respect to the question whether a concept is universal or particular, the number of attributes constituting its content is quite immaterial; not so, however, the quality of those attributes, because it will be according as, in view of such quality, the presence of individual objects, corresponding to the concept in question, be conceived as mathematically or physically impossible or otherwise, that the concept must be held to be individual or

general. On the other hand, however, in respect to the question whether a universal concept is more or less universal, the amount of content may, under certain circumstances, be a relevant consideration, and the quality of the content always is; but neither from the one nor the other nor from both *alone* can any answer be given to the question, because, in reference to extension, we are concerned with a *relation*, while the content gives us only one term of the relation, and the second term must be supplied by experience. Meinong, insists, then, that the extension is not, like the intension, something definitely fixed or self-evident; but that, on the contrary, the real extension of a notion is no less independent of our knowledge than is any fact of the external world. Consequently, to suppose that between general and individual idea an association must first be contracted in order that the latter should be subsumed under the former is, for this very reason, absolutely precluded. In fine, Meinong's argument is directed all through to bringing out what he conceives to be the truth that not association but the self-conscious activity of attention is the main function involved in abstraction and generalisation.

The second of the *Hume-Studien* (published, as already noted, in 1882), deals with the theory of relations, and is much more constructive than the first had been; Meinong here elaborates a position of his own that, in view of his subsequent work, deserves special notice. His method, however, is still the same as before. He still proceeds on the basis of a critical discussion of what he finds in the writings of Locke, Hume, and the later empirical thinkers. As he had formerly refused to recognise in Hume's nominalism a legitimate development of Berkeley's doctrine, so here he is inclined to defend Locke's common-sense treatment of the subject under consideration against Hume's psychical atomism. But he does not fall into Kant's mistake of supposing it was only in reference to cause and effect that Hume had raised the issue of necessary connexion; indeed, it is not so much upon Hume's handling of causality as upon his handling of the more elementary relations of likeness and difference that Meinong's scrutiny is concentrated. And he maintains that Hume's whole theoretical philosophy is so essentially built upon his *Relationslehre* that an exposition of the latter, with any claim to completeness, would scarcely be justified in leaving a single portion of the former out of account.

At the outset, Meinong resists the view (the view of Mill and Spencer, but derived ultimately from Hume) that a relation, such as that of likeness, is explicable from the mere presence

to consciousness of two or more presentations, in this case like or resembling presentations. He takes his stand at once on the principle laid down by Lotze. "Every comparison, and in general every relation between two elements, presupposes," so Lotze had asserted, "that both points of relation remain separate, and that an ideating activity passes over from the one to the other, and at the same time becomes conscious of the alteration which it has experienced in this transition. We exercise such an activity when, for example, we compare red and blue, and thereby there ensues for us the new presentation of a qualitative similarity, which we ascribe to both."[1] Meinong points out that the existence of an activity of the kind indicated by Lotze had already been virtually recognised by Locke, when he described relations as complex ideas resulting from an act of comparison, although Locke had left the nature of the act which he thus specified undetermined. So much being granted, there is, Meinong argues, already determined what alone, in any intelligible sense, can be called the *fundamentum relationis* of the activity in question; clearly it can be no other than the compared presentations themselves. No doubt, what, as a rule, we have given are not single but complex presentations, complexes of presented attributes. If two dice, one red and the other blue, be compared and found to be different, the comparison, in the strict sense, has reference not to the shape but to the colour; and, accordingly, only the actually compared features ought to be spoken of as *fundamenta*. Yet, in such cases, we are wont to say not merely that the two colours but that the two dice have been compared, with the qualification, perhaps, "in respect to their colour". And in this usage may be discerned what Locke had in mind when he insisted that in a relation there is always requisite, on the one hand, the things to be compared, and, on the other hand, the "occasion" for such comparison. In the example just used, the dice are the things, the colour the "occasion". Evidently, then, there can be no relation without a *fundamentum*, or more precisely two *fundamenta*. These may themselves be relations, for relations can, of course, be compared; but we cannot go on making relations the *fundamenta* of relations indefinitely; ultimately every relation has for its *fundamenta* presentations which are not relations, for otherwise there would be a comparison in which there was nothing compared. Hume's initial error, an error that ruined his classification of relations, consisted in his confusing the notion of *fundamentum* with that of relation.

[1] *Grundzüge der Psychologie*, p. 23.

Two chief classes of relations are distinguished by Meinong —relations of comparison (*Vergleichungsrelationen*) and relations of compatibility (*Verträglichkeitsrelationen*). (*a*) Under the first class are included relations of likeness (*Gleichheit*) and of unlikeness or difference (*Verschiedenheit*). And here the view (*e.g.*, Mill's) that likeness is only a special case of resemblance (*Aehnlichkeit*) is decisively rejected. Resemblance, it is argued, may be present in all conceivable gradations, but in likeness there is no gradation—what is like is completely like, and what is not completely like is not like—so that it would be unnatural to bring the cases of likeness and certain cases of unlikeness under the head of resemblance, and the remaining cases of unlikeness under the head of difference. Not only so; it would be difficult to imagine how, through determination of the notion of resemblance, the notion of likeness could have arisen. And finally, the usage of language is altogether adverse to the view in question, for in speaking of similarity one is almost invariably conscious of difference as being likewise involved. Resemblance, then, is always a special case of difference; in so far as partial agreement or likeness is essential to resemblance, it is still only likeness *of elements*, while the resemblance is asserted of the whole. Spatial and temporal relations fall within this class. The *fundamenta* of the former are like and unlike space-determinations within the homogeneous space-continuum, and of the latter time-determinations within the homogeneous time-continuum. (*b*) Meinong was led to constitute relations of compatibility into a class by themselves through consideration of what Hume had meant by 'contrariety' and Locke, in his familiar definition of knowledge, by 'repugnancy'. The notions compatibility and incompatibility are not, he maintains, constituted after the manner of the notions likeness and difference. The latter admit of no definition, and can only be explained by means of examples; the former do seem to admit of a kind of definition —compatible is what can subsist together, incompatible what cannot. In the long run, the question of compatibility can only be raised with regard to attributes of like time- and space-determinations. Here we seem to be face to face with an ultimate fact, and a fact which belongs not to the province of presentation but to that of judgment. When it is said, for example, that the 'round' and the 'square' cannot be simultaneously in the same place, there is no new presented content introduced by the phrase 'cannot'; it only makes the statement an expression of a negative judgment, and this judgment carries with it that peculiar, indescrib-

able, and familiar characteristic which it has long been customary to describe as evidence. It would seem, therefore, that relations of compatibility may be said, in a certain sense, to be secondary formations, in so far as they are based upon a special case of relations of comparison—namely, on the case of like space- and time-determinations. There is, however, a further feature to be noticed. The two possibilities that come forward in regard to this second class of relations do not stand independently side by side as likeness and unlikeness do. The one can only be characterised as the negation of the other; and, moreover, it is compatibility that is the negation of incompatibility and not *vice versa*; for compatibility seems to imply no more than that, in a particular instance, one has before him a case where evidence for an incompatibility of the kind indicated is wanting. If it be asked why such different things as cases of comparison and of compatibility should be grouped together under the title of relations between presented objects, Meinong would here justify his doing so by pointing in the first instance to the part played by the presented objects, which seemed to him perfectly analogous in the two cases. For these objects, the *fundamenta*, are invariably the basis upon which rest, in the one case, the presentation of likeness or difference, and the evident affirmation which attaches itself thereto; and, in the other case, the evident negation. So that incompatibility and likeness may each be said to be a relation between presented attributes.[1]

Meinong does not claim that his two-fold classification of relations is an exhaustive classification, although it does, he thinks, cover *all* the seven kinds distinguished by Hume in the *Treatise*. There are, however, relations *toto genere* distinct from any that were considered either by Hume or Locke. For instance, in quite a legitimate sense, one may speak of a relation between the act of presenting (*vorstellen*) and its content, where we have to do not with presented contents alone but also with the act in and through which those contents have their being. And this relation is not the product of a new activity; on the contrary, in the apprehension of it we seem to be no less passive than we seem to be in regard to the data described as *fundamenta*. So, too,

[1] This contention was discarded in the later writings. In them, Meinong maintains that relations of compatibility are based upon Objectives (see below, p. 26 *sqq.*); and that, consequently, they are relations not between presented attributes but between objects such as can only be apprehended through judgments or assumptions (*cf.*, *e.g.*, *Ueber Annahmen*, 2te Aufl., p. 215 *sqq.*).

the relations between the elements of a composite presentation are not in the least analogous to the relations between the presented parts of a physical object. These, then, are instances of what Meinong here calls "real relations"—real, because, seeing they are not outcomes of a new activity, they must really belong to the data, otherwise there could be no awareness of them. At the same time, 'real,' in this context, must not be understood as referring to anything extra-psychical, for obviously the relations in question are between psychical data, and are directly accessible to us in a way in which relations outside the circle of psychical phenomena never can be. As contrasted with these "real relations," the relations previously considered may be called "ideal relations"—ideal, because they are the products of a specific psychical activity, and do not belong to the data apart from such activity. But now, within the sphere of "ideal relations" a further line of demarcation requires to be drawn. Hume distinguished between relations that depend entirely on the ideas compared and those that may be changed without any change in the ideas. Through his failure clearly to recognise the significance of *fundamenta* for a relation, Hume was led wrongly to include contiguity and distance under relations of the last mentioned kind. Yet his distinction itself is an important one and coincides with the distinction upon which Meinong thinks stress should be laid between primary and secondary relations. The primary relations, those of comparison and of compatibility, are obtained beyond question by an act of discrimination directed upon the given *fundamenta*. There are, however, secondary relations, combinations of special cases of primary ones, where relative determinations without *fundamenta* come more or less to the front. With respect to secondary relations the data accessible to us are not sufficient, and if we connect the assertion of such relations with these data, we must have grounds for doing so outside the data themselves. The two chief secondary or derivative relations are those of causation and identity, both of which have been acquired originally as the result of practical needs. Meinong's analysis of the causal relation is virtually in agreement with Mill's. He lays repeated emphasis, however, upon the consideration that with respect to causality (and the same is true with respect to identity) it is impossible to confine attention to presentations; there is always involved a reference to external things, to real existents. To ascribe causality to mere presentations would, he says, be like ascribing a true biography to a prince in a fairy tale. The relation of causality is invariably

"carried over" into the external world. And he tries to show that there is nothing inexplicable in this reference to real existents. When one says, for example, of two feelings, that prior to the act of comparison by which they are judged to be different they were in fact different, there has already been such a "carrying over" of the ideal relation of difference from presented contents to existent entities. At the same time, primary relations may be said to be "pure relations" in the sense that an *Uebertragung* of this kind is not essential for their being as relations, whereas it is essential for the being of secondary or "empirical" relations. The pure relations are, therefore, *a priori*, and the judgments asserting them are *a priori* judgments. But no judgment about empirical relations can rest on a merely *a priori* basis; and just as little can a judgment about pure relations do so when it has reference not merely to presented contents but also to existent fact. It is further clear that none but "ideal relations" can be "carried over" into the domain of extra-psychical reality.

III.

The foundation of Meinong's subsequent work is laid in these early *Studies*. In them almost all the problems to which later he devoted such unwearied intellectual industry are, in one form or another, indicated, if not distinctly formulated. Not a few of the positions which were here maintained came, it is true, in the course of time, to be abandoned, and others to be radically revised; and the reasons that led to such changes often throw the clearest light upon the views that were finally adopted. I shall have something to say immediately upon some of the principal changes; meanwhile I want to refer to one definite result which these investigations yielded him, and from which he found no occasion to deviate.

In his own way, Meinong had reached the principle which may not inappropriately be said to be the starting-point of the Kantian theory,—the principle, namely, that knowledge involves a unique antithesis between knowing and the known, and that any attempt, such as Hume had made, to dispense with the former term of the antithesis must inevitably prove futile and abortive. In other words, through grappling with the crucial questions which the work of Hume and Hume's followers had thrust upon him, Meinong came to see the necessity of insisting upon the consideration that an object known never can be identical with any act which

is a knowing of it. And when once he had convinced himself that all knowledge involves recognition of relatedness among the parts of what is known, the existence of cognitive acts, as distinct from what Hume had called "impressions" and "ideas," seemed to him to be indisputably established. Let me try to illustrate his position in this respect. If it be said that the two presentations *A* and *B*, having occurred, somehow give rise to the new idea *C*—the idea, namely, of their likeness or difference, such language only conceals the want of explanation in what is said. For there must obviously be some process, some operation of the mind, through which the production of *C* has come about. *A*, it is supposed, may and does occur separately, *B* occurs separately. What is it, then, that takes place when *A* and *B* are held together so as to admit of what Hume himself had vaguely called "comparison"? Now it is possible—I think it is certain—that in stating the case in this way one is conceding too much to the doctrine one is opposing, and I only do so in order not to go beyond what Meinong himself would have said. But the point is that even on the assumption that isolated contents, presentations, are thus given, the inference is irresistible that the simultaneous presence of these contents, their peculiarities, their changes, and so on, furnish a new set of conditions in response to which an inner activity of the mind must have taken place, if so-called ideas of relation forthwith make their appearance. In so far, Meinong was but reiterating Lotze's well-known contention; and in this particular reference, I do not know that he ever advanced any considerable way from Lotze's position. He did not, I mean, ever call in question the view of presentations as so many separately given units, or ask himself whether the separateness, the singleness, the distinctiveness, which presentations, we will say, come to have may not be due to that very activity which he took to be involved in the comparison of them and in discerning their relations. Had he done so, not a few of the obscurities that beset, as we shall see, even his mature view of cognition would, I believe, have been avoided, and he would have emerged completely from the subjectivism of his early days.

I pass now to consider the two main directions in which Meinong was led to see that the view of knowledge he had hitherto been taking required modification. These are not, in fact, disconnected; so soon as the one advance had been made, it was well-nigh certain that the other would follow.

(*a*) In the *Hume-Studien* no distinction had as yet been recognised between the 'content' of an act of apprehension

and the 'object' (*Gegenstand*) of that act. Throughout, the former term had been employed as equivalent to the latter; and the act of apprehending had frequently been spoken of as being 'directed upon' the content. I think it likely that Meinong was materially influenced in this regard by an exceedingly acute piece of psychological analysis by Twardowski, which was published in 1894.[1] With admirable lucidity, Twardowski pointed to the ambiguity that attaches to the term *Vorgestelltes*—an ambiguity in its way no less pronounced than that which admittedly attached to the term *Vorstellung*. An object may be said to be 'presented' in the sense that, in addition to the many relations in which that object stands to other objects, it also stands in a definite relation to a cognising subject. And, in this sense, a 'presented object' is a veritable object, just in the same way as an extended object or a lost object is one. But, on the other hand, by 'presented object' may be meant what is a decided contrast to a veritable object—namely, a 'mental picture' of an object—and then it is no longer a veritable object, is no longer, in fact, an object at all. That which is presented *in* a presentation is its content; that which is presented *through* or *by means of* a presentation is its object—so Twardowski tried to bring out the contrast. In the paper (published in 1899),[2] in which Meinong himself first definitely insisted on the importance of the distinction, Twardowski's little book is specially alluded to and some of its illustrations are used. The considerations that had weighed with Meinong were, he tells us, such as the following. Nothing is more common than to represent (*vorstellen*) or to think of something which does not exist. We may think of something that is contradictory, a round square, for example, or of something that does not happen to exist as a matter of fact, a golden mountain, say, or of something which in virtue of its nature cannot exist (likeness or difference is an instance), or of something which has existed or will exist but does not exist now. Nevertheless, in all these cases a *Vorstellung* exists and exists in the present. Now, argues Meinong, no unprejudiced person would wish to maintain that the *Vorstellung* exists whilst its content does not. That, however, is not the whole story. 'Content' and 'object' differ not only in respect to existence but in respect to their nature or character. That which is physical can be presented, but the content of a psychical act can only be psychical; so, too, qualities such as blue, warm,

[1] *Zur Lehre vom Inhalt und Gegenstand der Vorstellungen*, Wien, 1894.
[2] *Ueber Gegenstände höherer Ordnung*, § 2, *G. A.*, vol. ii., p. 379 *sqq.*

heavy, can be presented, but neither the *Vorstellung* nor its content by which these qualities are presented is blue or warm or heavy; attributes of this sort evince themselves at once as totally inapplicable to the contents of mental acts. As regards the relation of the mental act to its content, the view which Meinong came to hold appears to have been that they are inseparable but distinguishable constituents of one existent fact or event. Whether it be a presentation (say) of a steeple or of a causal relation, in each case an act of presenting is involved, and *quâ* act these presentations resemble one another. On the other hand, in so far as the presentations are presentations of different objects, they do not resemble one another. And that wherein presentations of different objects are unlike one another, notwithstanding the circumstance that as acts they are not unlike, is their content; such content, no less than the act, being in each case a psychical existent in the present, whereas the object presented by means of it may be non-existent, not in the present, not psychical.

"The chief argument *against* contents," Mr. Russell once said, "is the difficulty of discovering them introspectively";[1] and it seems often to be supposed that whoever speaks of the content of a mental state is speaking of something purely hypothetical, of which there can be no direct experience. But, in Meinong's sense of the term 'content,' it would be nearer the truth to say that 'contents' are the only things which we do discover introspectively. For mental states can become known to us introspectively not as mere bare states or processes, but only as *specific* states,—the awareness of a blue colour, for example, as contrasted with the awareness of a pain or the awareness of a want. And if it be contended that the common element, awareness, can, in all such cases, be distinguished from the specific elements, the reply is, "no doubt it can; but only in the way in which the common characteristic 'human' can be distinguished from the more specific elements that belong to particular individual men—that is, by an act of deliberate abstraction." Now, whatever else it is, an act of introspection is certainly not an act of deliberate abstraction; and whoever is on the search for mental states apart from their contents, or for 'contents' apart from the states whose contents they are, may well find that of either or both he can find no trace.[2] That, however,

[1] *Monist*, vol. xxiv., 1914, p. 452.

[2] As an interesting illustration, it seems worth while to mention that, after having for a long time been assured of the existence of 'mental acts' (*cf*, *e.g.*, *Problems of Phil.*, p. 65) and altogether sceptical of 'contents,'

is due to the fact that he has been looking for something which no one ever supposed to be there.

(*b*) Throughout the *Hume-Studien*, Meinong had evidently been proceeding on the assumption that relations must be regarded as products of mental activity. They might indeed be thought of as 'carried over' into the physical world; but their essentially subjective character was not thereby called in question. It is in the article which appeared in 1891[1] on Ehrenfels' view of *Gestaltqualitäten* that Meinong is to be seen for the first time freeing himself from this assumption. In that article he acknowledges that he had himself fallen into the 'psychologist's fallacy' of thinking that, because a psychical act is requisite for the apprehension of relations, it is necessary that reflexion should be directed on psychical states in order that relations should be presented. But he had now come to see that from an empirical point of view the attempt to conceive the presentation of a relation (such as that between a colour and extension) as based upon the inner perception of an act of comparison instead of upon the compared elements themselves is wholly unnatural and contrary to fact. More particularly is the futility of such an *Umweg* apparent when it is pursued with respect to relations of compatibility. To suppose, in the case of the round square, that it is not 'round' and 'square' but the 'presentation of the round' and the 'presentation of the square' which are judged to be incompatible is surely perverse and non-sensical. No doubt, under certain conditions, these presentations may be judged to be incompatible; but 'round' and 'square' are found to be incompatible under the presupposition of like space- and time-determinations, whereas, to show that the corresponding presentations are incompatible, account would have to be taken of *their* mode of connexion. In the book that was published in 1907, in defence of the *Gegenstandstheorie*,[2] Meinong's rejection of the doctrine in question is still more emphatic. The most radical form of the subjectivist interpretation of the relations of likeness and difference would be, he thinks, that which took the former to *be* the possibility of confusing one thing with another, and the latter to *be* the absence of that possibility. Now, it may be quite true that likeness does really *indicate* the possibility of such

Mr. Russell is now persuaded of the existence of 'contents,' at least in the case of memory and thought, and cannot discover anything corresponding to acts (*cf. Analysis of Mind*, pp. 17-18 and 20-21.)

[1] *Zur Psychologie der Komplexionen und Relationen, G. A.*, i., p. 281 *sqq.*

[2] *Ueber die Stellung der Gegenstandstheorie im System der Wissenschaften*, pp. 143-145.

confusion; but little consideration is required to see that likeness only indicates and *is* not this possibility. In point of fact, one sees this neither better nor otherwise than one sees that a water-cart is not a mountain-tarn, or anything else that is obvious. And the best proof that likeness is not identical with 'to find like' is simply what a direct inspection of the two things yields. But an indirect proof can easily be provided by the reflexion that red and orange (say) are still like one another when they are not being compared. The argument is carried further in the volume, published in 1906, on the empirical bases of knowledge,[1] where it is contended that relations possess not only validity for what are there designated 'pure objects' but are transferable from the phenomenal to the real. While, in reference to our apprehension of relations, the influence of subjectivity need not be disputed, yet, it is argued, what we, as we are now constituted, are capable of knowing *a priori* is in no way rendered dubious through such subjectivity. We are justified, therefore, in asserting that things in themselves *are* like or unlike, etc., on precisely the same grounds as we are justified in asserting that colours are.

IV.

The two steps to which I have been referring having once been taken, the road to the elaboration of a *Gegenstandstheorie* was a fairly straight one. The next stage of Meinong's advance towards it consisted in his coming to recognise a class of objects which he called "objects of higher order,"[2] a conception, now sufficiently familiar, which was in fact only a further working out of the position that relations are objective in character. Objects of this class were found to be characterised by a want of independence, by a sort of incompleteness, such, for example, as attaches to the object 'difference,' if the attempt be made to isolate it from the differing terms. These objects are built, so to speak, upon other objects as their indispensable conditions, the latter being the *inferiora* of the former, and the former the *superiora* of the latter. The class of objects in question comprises not only relations but also complexes; and, in the case of complexes, the constituents, as in this sense analogous to the terms of a relation, play the part of *inferiora*. But a complex is more than a

[1] *Ueber die Erfahrungsgrundlagen unseres Wissens*, § 21 *sqq.*

[2] *Ueber Gegenstände höherer Ordnung, G. A.*, ii., p. 377 *sqq.* The phrase was not, of course, a new one. Meinong points out that Fechner had previously used it. But Lotze also spoke of *Vorstellungen* of higher order (*cf. Grundzüge der Psychologie*, iii., § 2).

collection of its constituents; it is not composed *merely* of a relation *and* its terms, for the terms in being related by the relation are at the same time related to it; and, although this involves a regress, the regress is not a vicious one, and so creates no difficulty.

The monograph just cited, published in 1899, may not inappropriately be said to be a preliminary survey of the ground which Meinong spent the last twenty years of his life in exploring. The preliminary survey was, however, sufficient to convince him of the enormous extent of the field. By 'metaphysics' had usually been understood a comprehensive science having for its aim to form a conception of the nature and ultimate ground of the universe; and numerous as the deceptive hopes that have been and are associated with the name may be, it is our intellectual shortcoming and not the idea of such a science upon which the blame for the deception must rest. Yet, in spite of the universality of its scope, metaphysics falls far short of being a science of objects. With the whole of what exists it has, indeed, to do. But the whole of what exists, including what has existed and will exist, is infinitesimal when compared with the whole of the objects of knowledge; and the fact that this has been so easily lost sight of is due, so Meinong avers, to that "prejudice in favour of the real" which has driven us to the extravagance of supposing that the non-real is something too trivial with which to concern ourselves. How absurd this prejudice is Meinong's preliminary survey had already made clear to him. Among the objects of higher order, he had discovered a great sub-division of "ideal objects"—objects which, to use his phraseology, subsist (*bestehen*), and many of which are of tremendous moment for what exists, but which themselves can, in no case, either exist (*existieren*) or be real (*wirklich sein*). Similarity and dissimilarity are, for instance, objects of this kind; they may subsist between realities, but they are not themselves bits of reality. Nevertheless, that in knowing we are vitally interested in these objects goes without saying. So, too, number does not exist alongside of the counted things, supposing the latter to be existents; and things that do not exist may be counted. Pure mathematics has in fact solely to do with ideal objects; and our "prejudice in favour of the real" leads here to the extraordinary, although, of course, not explicitly recognised, dilemma: Either that to which my knowing refers exists in reality, or it exists at least 'in my presentation'. And the very word 'ideal,' in defiance of its history, has come to stand for the latter. What does not exist outside of us

must at any rate exist within us—this we take involuntarily for granted, and it seldom occurs to us to reflect how futile and meaningless the subterfuge is.

Here, then, was a huge *Gebiet*, constituting, as it seemed to Meinong, that of a new science, of which only one portion, the department of mathematics, had hitherto had justice done to it. *Gegenstandstheorie* he defines as the science of objects as such, or of objects without limitation to the special class of those that exist, and of these latter only in so far as their nature (their *Sosein*), irrespective of their existence, is concerned. It has to inquire, one might, borrowing a favourite expression of Shadworth Hodgson's, say, what an object is 'known-as'; about its 'what' and not about its 'that'. Or it may be said to be the science of what can be known *a priori* about objects, understanding *a priori* in the sense in which Meinong uses the term.[1]

What is meant here by *Gegenstand?* A formal definition is, we are told, precluded, seeing that both *genus* and *differentia* are wanting; *alles ist Gegenstand.* But etymologically the term *gegenstehen* furnishes, at least, an indirect characteristic. This term has reference, namely, to the experiences through which the *Gegenstand* is grasped or apprehended (*erfasst*), the experiences, however, not being looked upon as in any way constitutive for the *Gegenstand.* Every inner experience (*Erlebnis*), at least every sufficiently elementary one, has an object (*Gegenstand*), and in so far as the experience comes to expression, ordinarily in words and sentences, there stands normally over against such expression a significance or meaning (*Bedeutung*), and this is the object.[2] In so far as all objects in order to be known must be grasped or apprehended (*erfasst*), it is true that what is grasped or apprehended (*Erfasstes*) and object are the same. What is apprehended can, however, either be thought of as such or only as object. In the former case, the relation in which the object stands to the apprehending subject is thought of along with it. Yet it is by no means necessary that it should be. What is grasped or apprehended can be thought of merely as object, for, not only is the relation in question not contained in the thought of the object, it belongs in no way to the nature of the object. Every object stands in relations to other objects; the fact that along with these relations there

[1] Judgments are said by him to be *a priori* when they (*a*) are grounded on the nature of their objects, (*b*) evince themselves as of self-evidencing certainty, (*c*) hold necessarily, and (*d*) are independent of existence. See *Erfahrungsgrundlagen*, p. 10.

[2] *Cf. Ueber Annahmen*, 2te Aufl., p. 26.

is that of being apprehended by a subject gives to the object the character of being an *apprehended* object, but not that of being an *object*. An object can *be* when the presentation by which it would be apprehended *is not;* and it can likewise *not be* when this presentation *is*.[1]

As the notion of object in general may in some measure be determined from the point of view of apprehension, so Meinong thinks the chief classes of objects may be characterised by reference to the chief classes of apprehending experiences (*der erfassenden Erlebnisse*). Accordingly, the four main classes of experiences—presentation (*vorstellen*), thinking, feeling, and conation—may be said to have corresponding to them the four classes of *Gegenstände*—Objects,[2] Objectives, Dignitatives, and Desideratives—only the peculiar character of these objects must not be assumed to be first constituted by the peculiar character of the experiences by which they are apprehended.

(*a*) The various species of Objects may be brought to light by different modes of division, but meanwhile I confine attention to the division of them into those which exist, those which subsist, and those which neither exist nor subsist.

That there are non-existent Objects—that is to say, Objects which only subsist—Meinong took to be indisputable. No one would assert that the difference between red and green exists as tables and chairs exist; but equally no one would doubt the being of this difference. The difference between red and green is not, it is true, seen as the colours are seen, but then perception[3] is not requisite for its apprehension; from the nature of red and green it is manifest that they *are* different.[4] Difference is, in fact, a *superius* which discloses itself in an *a priori* manner from the *inferiora;*[5] it is founded (*fundiert*) through its *inferiora*.

Meinong was likewise convinced that a class of non-subsistent Objects must be recognised. Impossible Objects, such as a round square, do not subsist, nevertheless they are Objects, so that we seem driven to the apparent paradox of asserting the being of that which has not being. Meinong's position in this reference is a difficult one; but, then, the problem which he was here up against is extraordinarily

[1] For several reasons, it is, I think, unfortunate that Meinong should have used the term *Gegenstand* in this all-inclusive sense. If he had employed the term 'being' with the comprehensive denotation it has become customary to give to it, he might have spoken of "entities" instead of "objects," and of a science of entities instead of a *Gegenstandstheorie*.

[2] When translating the German *Objekt*, I will use a capital O.

[3] Meinong's view of perception I leave over for discussion.

[4] *Cf., Erfahrungsgrundlagen*, p. 5 *sqq*. [5] See above, p. 21.

difficult. He tried, however, to meet the various objections that were raised against his view. Little weight could, he thought, be laid on the argument that the Objects which he regarded as non-subsistent must, in truth, be subsistent, seeing that they can be the subjects of true and therefore subsistent propositions. For obviously it is an argument which cannot be used by those who deny that there are non-subsistent Objects. If, as a matter of fact, a kind of being must belong to the round square, because subsistence cannot be denied to certain propositions based upon it, that is an argument *for* Objects such as a round square and *not* an argument *against* them. And to Mr. Russell's contention that the admission of impossible Objects involves denying the law of contradiction (the round square can be asserted to be both round and not round), his answer was that the law of contradiction had never been asserted except of the actual and the possible, and that whether it holds likewise of the impossible requires at least special scrutiny.[1] Meinong saw, at all events, that the problem is a real one and faced it seriously, whereas usually it is conveniently thrust aside as though it were no problem at all.

There is, however, a further difficulty with respect to this class of objects, about which I should like to say a few words. It arises in reference to the first division of them, of which I have not as yet spoken. What reason is there, on the view Meinong was taking, for supposing that there are *Objects* which not only subsist but exist? Meinong himself distinguished between these two kinds of being by pointing out that what exists must exist at some definite period of time, whereas what merely subsists is timeless, although existence as such is as timeless as subsistence.[2] And his pupil Ameseder, who usually follows him closely, adds the further differentiation that "that only is real (or existent) which can operate causally".[3] Meinong certainly seems to imply that sense-data (*Empfindungsgegenstände*) do not exist. These 'homeless objects' (so described because hitherto they had formed part of the subject-matter of no science) are, he

[1] *Ueber die Stellung der Gegenstandstheorie*, p. 16. In his review of this book (MIND, N.S., xvi., p. 439), Mr. Russell urges that the reply "seems to overlook the fact that it is of propositions (*i.e.*, of 'Objectives' in Meinong's terminology), not of subjects, that the law of contradiction is asserted". I do not see that Meinong's remarks give countenance to this supposition. He appears to me to be saying that to suppose that two contradictory propositions can both be true may not be inadmissible when their subjects are impossible Objects.

[2] *Cf.*, *Ueber Annahmen*, 2te Aufl. p. 75.

[3] *Untersuchungen zur Gegenstandstheorie*, p. 79.

insists, neither mental nor physical. Colours, for example, are not mental; acts of seeing them are, of course, mental, and so likewise are the contents of these acts; but colours are quite distinct from presentations of colours. Nor are they physical; their substitutes in the material world are vibratory motions or modes of energy.[1] Ameseder definitely affirms that "since a colour is, like every other object of sensation, not capable of operating causally, its being is not existence". Every sensation, he contends, has a cause, but this cause is never identical with what, through the sensation, is apprehended. The cause is physical, or, at any rate, not psychical; what is apprehended through the sensation, the sense-datum, is neither physical nor psychical, and is not an existent.[2] Sense-data, then, being excluded, what are the existents that can be said to be Objects, in Meinong's sense of *Vorstellungsgegenstände?* As instances of existents, Ameseder mentions a quantum of water and a psychical process. But the water, as distinct from the sense-data erroneously, as he thinks, ascribed to it, is not presented, and can only be known, if at all, through perception, perception being in Meinong's view always an act of judging. Physical existents, one would gather, therefore, never can be Objects (*Objekte*). And the same would appear to be true of psychical processes, for they, too, according to the theory, cannot be presented. So that it would seem as though we were driven to the conclusion that for human knowledge, at any rate, there are no existent Objects. It is here, I think, that we come upon one of the weaknesses of Meinong's doctrine of *Vorstellungen.*

(*b*) His view of Objectives has become sufficiently familiar from Mr. Russell's discussions of it. If by a "proposition" be meant not a form of words which expresses what is either true or false, but that which is expressed by the form of words, that which is true or false, an Objective is equivalent to a proposition. Meinong himself preferred to say that a sentence *is* an expression of an act of thinking (an act of judging or assuming) and *has* a meaning; and that the meaning is the Objective, *i.e.*, the object of the act of thought. Just as it is a characteristic of every *Vorstellung* to present an Object, so it lies in the nature of every act of thought to think an Objective. By employing the term 'Objective' Meinong wished to emphasise that what is judged or supposed is not an ideal *construction* on the part of

[1] *Ueber die Stellung der Gegenstandstheorie*, pp. 8-9.
[2] *Untersuchungen zur Gegenstandstheorie*, pp. 94 and 481-482.

the mind; that it is not the content of an act of thought any more than a presented object is the content of a presentation; that it is what thought discovers and not what thought may be supposed to make or manufacture. Objectives must clearly be "objects of higher order," and as such they are founded (*fundiert*) upon other objects—that is to say, either directly or indirectly[1] upon Objects. Confining attention at present to acts of judgment (*i.e.*, omitting *Annahmen*), we may say that the Objective is what is judged (*was geurteilt wird*), and the Object what is judged about (*was beurteilt wird*). If, for example, it be asserted that the fire is bright, the Objective is "that the fire is bright," and this Objective is founded upon the Objects "the fire" and "brightness". Objectives are, of course, incapable of existence, but only false Objectives are incapable of subsistence. In his latest writings, Meinong was in the habit of saying that every object *has* being (or non-being); that there are, however, objects which not only *have* being (in this widest sense) but also *are* being, and that these are Objectives, while what *has* being, and *is* not being, is thereby characterised as Object. Or, expressed otherwise, Objectives attach to Objects, and Objects stand in Objectives. What exactly is to be understood by the non-being of false Objectives is, he admitted, a matter that requires investigation. Naming it meanwhile *Aussersein*, what remains undecided is whether this *Aussersein* is a determination of being or whether it denotes simply deprivation of being. The principle of Occam's razor and the circumstance that *Aussersein* has no negative seemed to him to favour the latter alternative, although he recognised the difficulty of the position.[2]

Being, taken in the widest sense as that which comes before us in every Objective, evinces itself either as being in the narrower sense, expressed in the form "*A* is"; or as being so-and-so (*Sosein*), "*A* is *B*"; or as co-being (*Mitsein*), "If *A*, then *B*". These correspond more or less to the distinctions recognised by traditional logic between so-called existential, categorical, and hypothetical judgments. [Whether there is any class of Objectives corresponding to the disjunctive judgment of traditional logic Meinong considered to be doubtful; it would rather seem, he suggested, that we have here to do with complexes of Objectives, such as may be

[1] The Objective of one act of thought can, of course, be founded upon an Objective of another, *e.g.*, 'it is certain that *A* is *B*,' where what is judged to be certain is neither *A* nor *B* but 'that *A* is *B*'.

[2] The difficulty is not, of course, peculiar to Meinong's view. On *no* theory, so far as I can see, has any satisfactory explanation been given of what Meinong called "false Objectives".

met with in each of the three classes mentioned.] Since both *Sosein* and *Mitsein* necessarily involve a bifurcation of *inferiora*, these *inferiora* exhibit themselves in characteristic relations—the relation of predication in the case of *Sosein*, that of implication in the case of *Mitsein*. *Sosein*, again, falls into the sub-divisions of *Wassein* (*e.g.*, "the horse is a mammal") and *Wiesein* (*e.g.*, "snow is white"); and *Mitsein* appears to be differentiated into the cases where the *inferiora* stand in an "if-relation" and those where they stand in a "because-relation".

Meinong held further that the peculiarity of the being of Objectives is manifested in nothing more decidedly than in the modal qualities which, as he maintained, belong to it. Actuality (*Tatsächlichkeit*),[1] the quality of being a fact, can be ascribed only to Objectives, or to other objects only in a derivative sense. And, on purely empirical grounds, Meinong was convinced that when we are thinking of the factual character of an Objective we need not be thinking of the certainty and evidence in the judgment which grasps it. Certainty and evidence are subjective characteristics,—the one belonging to the act of judging and the other to its content; and, although we may come to be aware of the factual character of an Objective by reflecting on the certainty and evidence of the judgment, we are usually aware of it by direct inspection. Possibility is, so to speak, actuality of a lower grade, actuality is the maximum of possibility; so that the various degrees of possibility might be represented on a line the opposite ends of which would be actuality and non-actuality. So, too, necessity is a characteristic of many Objectives, a characteristic which is grasped, Meinong maintained, by what he called rational evidence, but which is in no sense constituted thereby. The characteristic of necessity, when it belongs to an Objective, is knowable in the most direct and immediate way;[2] it is given as something essentially positive, so that the interpretation of it as the inconceivability of the opposite is ruled out on this account alone. Not only so. Necessity cannot be taken to be an enhanced degree of actuality, as the latter is an enhanced degree of possibility, for actuality does not admit of enhancement. And, on the other hand, it is, in strictness, no less absurd to speak of a decrease of necessity, out of which decrease actuality could, as it were, result. For even

[1] If *Tatsächlichkeit* be rendered here by 'actuality,' actuality must not of course be taken to signify existence.

[2] *Cf.* the opening pages of *Erfahrungsgrundlagen*.

[3] *Ueber Möglichkeit und Wahrscheinlichkeit*, p. 122 *sqq*.

within the region of merely possible Objectives necessity is likewise to be found.[3]

(*c* and *d*.) Presentation and thought are, however, far from being the only means by which, as Meinong conceived, objects (*Gegenstände*) can be experienced by a conscious mind. No doubt the capacity of feeling as a medium of knowledge falls a long way behind that of presentation. Yet when, for instance, we pronounce a degree of warmth to be pleasant, it is easily seen, he urged, how utterly foreign it would be to experience to interpret the quality pleasant as being an experienced feeling produced in us by the warmth. So, too, he contended, the heavens are called beautiful in no other sense than that in which they are called blue, save that the experience (*Erlebnis*) through which the former of these qualities comes to recognition does not play in the inner life *merely* the part of being a mode of grasping or apprehending. But, all the same, it *does* play that part; and, consequently, there stand over against the feelings special kinds of objects, precisely as there do over against presentations and thoughts. These objects are always objects of higher order; and are, therefore, akin to Objectives. Meinong distinguished four classes of feelings—namely, those accompanying (i) the act of presentation, (ii) its content, (iii) the act of thought, and (iv) its content; and he tried to show that to each of these a specific kind of object could be correlated—namely, the qualities pleasant, beautiful, true, and good (provided that not only a cognitive but a feeling significance be ascribed to the term 'true'). These values, then, are distinctively objects (*e.g.*, when we say 'this ornament is pretty' we imply that it deserves to please, that it is worthy of being regarded as pleasure-giving); they are grasped through or by means of experiences, as all other objects are, but in their essence they are independent of such experiences; and as such they are what he designated Dignitatives. So, too, in desire, that which is desired is grasped through or by means of the content of the act of desiring, but it is not constituted thereby. To this class of Desideratives, may be reckoned objects that fall under the heads of *Sollen* and *Zweck*.

In the manner I have thus tried briefly to sketch, Meinong contrived to map out broadly the province of *Gegenstandstheorie*, and to carry out in several of its departments researches of a far-reaching kind. It may be objected that a province of these dimensions must certainly be co-extensive with the whole of philosophy, if not with the whole of knowledge. Meinong thought otherwise. It is clearly possible, he maintained, to deal separately with the general properties

of objects, to consider what can be ascertained *a priori* from their nature, without reference to their existence or non-existence. So regarded, it seemed to him that *Gegenstandstheorie* belongs to philosophy as an essential part of it; and that it in no way encroaches upon those parts of philosophy already recognised. That his investigation of its problems led him to important inquiries in other fields, particularly in the fields of psychology and the theory of knowledge, I shall try to show in a second article.

(*To be continued.*)

II.—CONCERNING "TRANSCENDENCE" AND "BIFURCATION".

By Roy Wood Sellars.

At the present moment, a division in the ranks of realism of major significance is making itself increasingly apparent. On the one hand, we have the advocates of neo-realism, which is a form of naïve realism; on the other, the protagonists of critical realism. Both groups agree on the primary principle of realism that the object of knowledge is independent, as regards its existence and nature, of the act of knowledge. But they differ as to the location of the object and the character of knowledge. This difference is usually expressed by the contrast between transcendence and immanence.[1] The critical realist holds that physical things and other minds transcend the mind of the knower, while the neo-realist is convinced that they are directly given to his mind.

It is impossible to make this contrast accurate apart from detailed statements of the meaning given to such terms as mind and experience. But I feel that I can take it for granted that the difference between the two groups in this respect is well known. The neo-realist accepts a compresence of knower and known in the cognitive experience and thus makes experience literally include subject and object. The critical realist, on the contrary, denies that the existent *which is made the object of knowledge* can be brought into the field of experience.

This contrast may be expressed by the terms epistemological dualism and epistemological monism; and, again, by the distinction between knowledge as apprehension and knowledge as a claim made for ideas, a reference of ideas or predicates to an affirmed, transcendent existent.

The distinctive feature of critical realism is, accordingly, its defence of transcendence and correspondence in the face of the unanimous opposition of neo-realism, pragmatism and

[1] I note that Prof. Perry has adopted this contrast in a recent review of *Essays in Critical Realism*.

idealism. It claims to have made new analyses which justify it in this rather daring stand. Those who really desire to see philosophy advance will surely take the trouble to make a serious effort to understand the critical realist and will not content themselves with saying that the refutation of Locke's copy theory has settled the question once for all.

In his recent Gifford Lectures, Prof. Alexander has devoted a few pages to a criticism of the form which the doctrine of a transcendent existent conditioning presentations has taken with Stout and Külpe. I shall concern myself with my own reaction to Alexander's arguments, leaving Stout to defend himself.[1]

Alexander quotes Stout as follows: "we must assume that the simplest datum of sense-perception from which the cognition of an external world can develop consists not merely in a sensuous presentation, but in a sensuous presentation apprehended as conditioned by something other than itself".[2] To this assertion he replies that the "reference is to the object, that is to the presentation itself; for the theory under consideration the reference is to something beyond and behind it". Now my own analysis is nearer Alexander's than Stout's. I find two elements in perception, the affirmation of an object and the appearance of that object. I do not find this sense of conditioning to which Stout refers. But my objection to Alexander's attitude is that he is satisfied with *immediate experience*. But why should philosophy be any more satisfied with immediate experience than is science? For science, immediate experience is the point of departure and not the conclusion. All facts must be taken into consideration before the final synthesis is made. In all my writings, I have argued that naïve realism is the point of departure and that *reflexion* breaks it down and forces us to make the distinction between presentation, or datum, and thing. I believe that this was Külpe's position, and I know that it is the position of the American group. The distinction we have, and there is nothing self-contradictory in it.

Now Alexander does not believe that reflexion forces us to make this contrast, and he, therefore, remains a naïve realist. For the subtle way in which he carries through the distinction between object and thing I have the greatest admiration; but I am convinced that the facts of science indicate that the datum, or content, of perception is subjective or bound up with the percipient organism and that the various appear-

[1] I understand that Külpe's more constructive work is in process of publication under Messer's editorship.

[2] Alexander, *Space, Time and Deity*, vol. ii., p. 96.

ances of things cannot be harmonised without reference to this fundamental condition.[1]

The desperate attemps which naïve realists make to meet the traditional objections is clearly motivated by the belief that the choice is between naïve realism and idealism. The assumption that a non-presentative theory of knowledge cannot be carried through controls the direction of their thought. The American new realists have acknowledged this, and Alexander makes essentially the same confession on page 98: "How can experience warrant a reference to this something conditioning presentation which we never have experienced and which is only a symbol for the non-mental? . . . But the supposed condition of presentation cannot be further known for it is not known at all." But is this not to assume that knowledge must be a presentation or an experiencing? It is at this point that dogma enters. Certainly, knowledge must be based upon experience; but what right has any thinker to assert that the thing known *must* be given in experience, must be an existential component of experience?

Critical realism is an attempt to devolop a non-presentative view of knowledge. It seems advisable to use this negative phrase at the beginning in order to avoid the historical associations which a term like "representative" inevitably has. But, first of all, let me insist that there are different kinds of knowledge. There is knowledge of what is immanent in experience such as ideal objects, sense-data, feelings, etc.; and there is knowledge of what is transcendent to the individual knower. Without the first, we could not have the second. There are, of course, many points of interest in regard to the first kind of knowledge but I must neglect them for the sake of concentration upon the second kind of knowledge, which has so often been denied and misunderstood—denied, I believe, because misunderstood.

One reason for this misunderstanding of non-presentative knowledge was the confusion of epistemology with metaphysics so long prevalent. Epistemological dualism was associated with metaphysical dualism and was actually hopelessly entangled with such assumptions as "mind and matter" and "substratum with inherent qualities". Let it be borne in mind, therefore, that the critical realist is concerning himself with the individual's knowledge of objects in his environment which are obviously not himself

[1] This is quite obviously not the place to go into details in criticism of naïve realism. May I refer to my examination of it in *Critical Realism*, ch. i., and to Drake's arguments in *Essays in Critical Realism?*

and yet not in another world in any metaphysical sense. To use Whitehead's terminology, the critical realist maintains that the "situation" of sense-objects is the percipient event, the body of the percipient, the nervous system, while the "situation" of physical objects is in the extra-bodily event. I shall try to show later that this *reflective assignment* does not involve either "bifurcation" or Aristotle's view of matter. With Whitehead's philosophy of nature I have almost complete sympathy but I do think that it can be separated from naïve realism.[1]

Lockian realism is a thwarted naïve realism controlled by scholastic metaphysics. There is in it no adequate attempt to reinterpret the act and content of knowledge. He is convinced that the physical thing and the ideas in the "mind"[2] of the percipient cannot be identical, that the situation of the latter is not that of the former; but his stress upon causal relations leads him to forget the knowledge-claim and to fall back on a mere statement of partial likeness. In my own essay in our co-operative volume I have tried to explain this point. Thus, though an epistemological dualist, I can heartily agree with Whitehead when he says that science concerns itself with nature as known. But is not nature a condition of its being known? We must supplement the physiological theory of perception with an analysis of knowledge and its claims, and that is what Locke failed to do in any adequate way. Even for Whitehead, knowledge is an ultimate claim and mystery. He simply knows that "nature is what we are aware of in perception".

The critical realist holds that he finds the act of knowledge, whether at the level of perception or of critical scientific judgment, is a claim to grasp in some measure the character and relations of its object. Now this object is, as Stout holds, the condition of the presentation in perception but knowledge does not directly concern itself with that fact but with affirming and grasping its object. The two things must not be confused. They do not contradict each other; they are simply different.

The difference between naïve and critical realism as theories of knowledge is accordingly this: naïve realism believes that the object affirmed or referred to is given—existentially or literally given in the field of experience—while the critical realist holds that the object to which his organism is responding and which he affirms is not so given but that the

[1] May I in this connexion state that my *Evolutionary Naturalism* which has been so long delayed in the press will come out this Fall?

[2] No critical realist has a naïve, substantialistic, soul-like idea of mind. It is a term for operations and contents with specific situations.

presentation which is given is both instinctively and reflectively assigned to the object. It is the cognitive reaching out to or grasping of the object which the critical realist stresses. *And he believes that a cognitive grasping by means of characters or universals is valid, that it is what we do, and that it is the only thing we can do.* In other words, his position is a flat challenging of the dogma that knowledge must be a presentation of the thing itself.

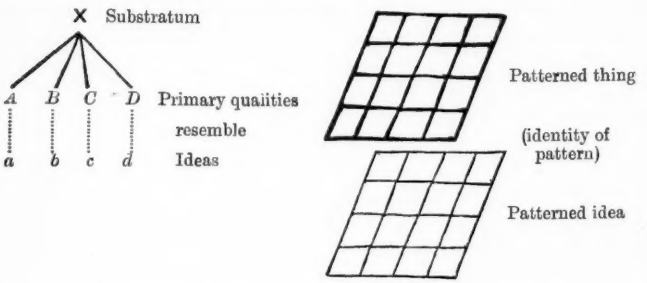
While we are analysing knowledge and pointing out the difference between Lockianism and critical realism, another fact needs emphasis. There is not in the immediate knowledge-claim the absurd attempt to compare idea and object. I do not find in the knowledge-claim anything but predications about the thing which is the object of reference or, at the level of perception, assignment of characters to the thing. And yet this comparison notion was one absurdity for which non-presentative realism was discarded in that dogmatic and blind way that is so common that it will be hard to get a fair hearing for critical realism. The mistake of Locke, who had not really analysed the knowledge-claim (note his definition of knowledge as the perception of the agreement or disagreement of two ideas), was fastened on, to the exclusion of other possibilities. If we had both a cognitive idea and thing, what would be the use of the idea? And it must be remembered that a cognitive idea as a part of a knowledge-claim is quite different from a mere image as an object of attention.

The act of knowledge is a distinct claim or assertion which contains an idea or complex of universals as the content of its assertion, as what is predicated of the object as that object's character. Such a claim has its postulate and its more or less instinctive basis. Its postulate—justified, I think, by the situation of the percipient organism and the guiding value of knowledge—is twofold: (1) the revealing capacity of the presentational complex with its differential pattern and (2) the ability of the mind to elicit by thought the maximum of knowledge from this complex. The mind discovers and quarries knowledge out of the material of perceptual observation.

What can be revealed by the presentational complex? Let me stress the fact that much of the objection to non-presentative realism lay here. My answer will at least be definite, and, I think, true. *That* will be revealed which can be reproduced. And the more that I reflect and the more I study science, the more I am convinced that it is *the determinate order, structure and behaviour of the physical world*

which is reproduced. It is a correspondence of static and dynamic pattern *in different media* to the discovery of which all sense-data and activities, like measurement, can act as clues. We do not have here the idea of entitative likeness of stuff against which Berkeley protested when he said that a sensation could be like only a sensation, a view which was inherent in the scholastic conception of properties in a substratum. What we know, what is revealed, is the determinate structure and behaviour of things and not attributes in the old sense, whether primary or secondary. Thus our theory of knowledge agrees with Whitehead's rejection of the old substratum notion of matter while yet making all sense-objects subjective together, that is, in the situation of the percipient event, the organism. This is only a brief indication of the entire reinterpretation of what knowledge grasps and what is reproducible. It is the pattern of things which is reproducible in experience, just as the structure of an organ is reproduced by the histologist in wax. The analogy is real, though the difference of medium must not be overlooked.

My conception has been so inadequately grasped in the past—largely my own fault, I have no doubt—that I wish to be certain that I have at least made myself clear. My fundamental concept is that there is between idea and thing an identity of order and not of material. A thing is an *ordered material,* and it is this order which may arise elsewhere under its control with no identity of material. It is a correspondence of pattern and not a likeness of stuff which I have in mind. The difference between the old representative theory and my own can be indicated as follows:



From this contrast, which could be still further developed by bringing out behaviour as the temporal phase of pattern, the marked difference in the conception of what knowledge

grasps comes out. We cannot grasp the stuff of our object but only its form or pattern; for the one can be reproduced in the medium of experience, the other cannot, for it is the existence of the thing. But I must not move too far into my metaphysics.

Faulty as Locke's epistemology was, the nominalistic psychology which succeeded it was still worse. Justice was not done to thought, to distinctions and to cognitive references. And the harm was done. It was not until practically the twentieth century that realism again raised its head. And then naïve realism rather than the more subtle critical realism was path-breaking.

But we must press on to defend transcendence, a notion which, as we saw, distinguishes the critical realist from all other schools of philosophy. First of all, let us point out that the term "object" is ambiguous. When Whitehead states that nature is what we are aware of in perception, he is both right and wrong. The terms "what" and "aware" need analysis. In perception, reflexion forces us to make distinctions which make explicit what is already implicit. "What" breaks up into object and its content or appearance; "aware" breaks up into reference and consciousness of datum or appearance. Thus the critical realist is quite willing to say that nature is what he is aware of; but he holds the situation to be more complex than does the naïve realist. Let us call the datum the object of intuition or what is given (no mystical idea of intuition is assumed), and the physical existent the object of perception, the thing to which the organism is responding and adjusting itself. The point is that, in perception, this external object of selective behaviour is affirmed and automatically interpreted in terms of the datum or object of intuition. It is this apparent coalescence or identity of object of intuition and object of organic adjustment which furnishes the unanalysed point of departure and strength of naïve realism.

Because of this identification of object of intuition and object of adjustment, without which consciousness could have no guiding value, philosophy has assumed that an object must be given in experience. But the truth is that only the datum or object of intuition is given. The automatic coalescence or identification of the two kinds of objects has misled philosophy. A physical thing is an object only in the sense that it is made an object by the percipient organism. *That is what object means in this case.* By its very nature and situation it is outside the individual's experience-complex, though not outside the reach of knowledge as a claim or

reference. The object of intuition, the datum, the appearance is within experience. Once this distinction is thoroughly grasped, it will be seen that there is no contradiction in the thought of a transcendent object. The object of the percipient organism is by its very nature transcendent, that is, other than the organism. Perception is the natural identification of object of intuition and object of response, or the assignment of the one object to the other. Is the critical realist making a new and more adequate analysis here than has been done in the past? I am persuaded that he is.

The existent which is selected as the object of reference has its own determinate nature. It is a patterned or ordered stuff. What character has the cognitive idea to enable it to give knowledge of the object? I have argued that there is a reproduced identity of pattern or order in the dimensions of space and time. There is thus an identity between cognitive idea and object, an identity of understood pattern with the pattern of the physical existent. Put in other words, the applicability of universals to the object is validated by this identity. Since one member of the two terms is a complex of logical characters or meanings, the identity itself may be spoken of as a logical identity. But it must be remembered that the object is reproduced only with respect to its determinations and not existentially. To know a thing is not to have the thing itself with its energies and creative activities in the mind. Knowledge is as near to the thing as we can get and is very valuable, but by its very situation and nature falls short of being.

To guard against misunderstanding, I would emphasise the fact that the data of perception assigned so automatically to the object are rather the material for critical knowledge which can employ all of it as the point of departure for mature critical judgment.

When I assert that critical realism involves epistemological dualism, I do so with my own critical notion of epistemological dualism in mind. In the act of knowledge, the existence of the idea is disregarded, only its content is held before the attention. Yet reflexion must admit that the idea which grasps the determinations of the object through identity is yet existentially distinct from the object. This existential distinctness forces us to speak of correspondence, for in correspondence we have the two elements of numerical difference and logical identity. But let us remember that in knowledge the idea means the object and does not linger on itself. We say that a thing *is* composed of cells, *is* of a certain size, *behaves* in a certain way, etc. In knowledge,

there is no bifurcation and yet the data are in the situation of the percipient event.

The mistake to be avoided is to think of *something* as passing back and forth between mind and thing. Aristotelianism was not free from this mistake. There was, also, in Aristotelianism a tendency to metaphysical dualism between form and matter. Both of these mistakes are quite unnecessary. Form or pattern as against matter is a part within the whole or, better yet because more complete, a logical distinction and not an ontological entity. Yet because of its historical associations in scholastic philosophy, I am inclined to fight shy of the term "essence".

While I have in this paper attacked Prof. Whitehead's epistemology, I am no friend of bifurcation for either science or metaphysics. But what, on an incomplete analysis, may seem to involve bifurcation may not actually do so. I think that I have pointed out enough to make it clear that none of the bifurcative positions he attacks is identical with critical realism. Prof. Whitehead extrudes mind from nature in a very hasty fashion. Practically no philosopher on this side of the water, be he pragmatist, new realist or critical realist, would assert with Prof. Whitehead that action upon mind is not action in nature. Mind is not alien. It is the nervous system. And the nature known in perception is identical with the nature which is one condition of the sense-objects by means of which we know it. But let me hasten to add that with the aim of Prof. Whitehead I have nothing but agreement. The task of science is correctly put as the discussion of "the relations *inter se* of things known, abstracted from the bare fact that they are known". And yet a *philosophy of nature* can hardly be separated from an epistemology. There will be quirks in it which will reflect the assumptions made.

III.—DR. WILDON CARR AND LORD HALDANE ON SCIENTIFIC RELATIVITY.

By J. E. Turner.

Both Dr. Carr and Lord Haldane appear to draw far too heavily upon the scientific theory of relativity as an argument for the philosophic principle. In this respect Einstein's recent statement that "there was nothing specially, certainly nothing intentionally, philosophical about it"[1] is highly significant; for it is extremely improbable that its philosophic bearings should always, during his long investigation, have been altogether absent from his mind; and, further, such speculative suggestions as he has advanced have taken a wholly different direction.[2]

It is therefore, I think, fundamentally important to recognise that the scientific theory in itself has at bottom very little bearing on any form of the philosophic principle of relativity; so little indeed that it is even doubtful that it "is only an illustration of its application to a special subject,"[3] moderate though this position is as compared with other recent interpretations. For the scientific theory is concerned, and is concerned only, with certain definitely *limited aspects* of space and time—with what Einstein has called "an analysis of the *physical* conceptions of time and space"[4]—a limitation which is, of course, perfectly legitimate from the scientific standpoint, but which must none the less be carefully borne in mind in any discussion of the theory's philosophic implications. To pass from these "physical conceptions" to the philosophical aspects of time and space is to "cross the Rubicon"; and much of the prevailing confusion is due to the transition being undertaken as though it were of no significance, so that what is true of the scientific concepts is also regarded as true of time and space within philosophy. Thus while Dr. Carr and Lord Haldane refer

[1] Report of lecture, *Nature*, 16th June, 1921, p. 504.
[2] *Cf.* below, p. 45, n. 3.
[3] Haldane, *The Reign of Relativity*, p. 34. *Cf.* p. 39.
[4] *The Theory of Relativity*, p. 19. *Cf.* p. 23, "a definition of time *in physics*". (My italics.)

to them as distinguishable,[1] neither appears adequately to recognise the crucial importance of the distinction.

This impression is confirmed, I think, by a curiously interesting passage in Einstein's *Theory of Relativity*. "We entirely shun," he says, "the vague word space, of which, we must honestly acknowledge, we *cannot form the slightest conception*, and we replace it by motion relative to a practically rigid body of reference."[2] It is difficult to appreciate the exact value of this statement, because it is not strictly adhered to by Einstein himself;[3] it seems to me to indicate his emphasis on the "physical interpretation of space and time data" (p. 79), and his explicit exclusion of any wider reference;[4] which again warns us that in going beyond the scientific field of enquiry we cannot interpret scientific conclusions without further analysis and qualification.

It is in consonance with this that Cunningham maintains that "The principle is not a metaphysical doctrine based on the supposition that it is impossible to conceive of an absolute standard of position in space. Dynamical relativity is a different thing from a statement as to what is within the power of the mind to conceive about position and motion."[5] While therefore it may be true, it is irrelevant to the bearing of scientific relativity upon philosophy to assert that "the idea of an absolute motion is a metaphysical invention of the school of classical mechanics," or that "absolute position, shape, and measurement are all unmeaning";[6] for in so far as "absolute entities" (or concepts) are criticised by Einstein they are regarded not as metaphysically, but purely as physically, "absolute"; the "absolute time," *e.g.*, of classical mechanics is "absolute," not metaphysically, but as "independent of the position and the condition of motion of the

[1] *The Reign of Relativity*, pp. 55, 59, 70. *The Principle of Relativity*, chaps. i. and vii.

[2] P. 9. My italics.

[3] He speaks, *e.g.*, of "relative orientation in space of co-ordinate systems" (p. 32); "the law governing the gravitational field in space" (p. 64); again, "space is a three-dimensional continuum" (p. 55) and "the geometrical properties of space are determined by matter" (p. 113).

[4] *Cf.*, "In respect of its rôle in the *equations* of physics, though not with regard to its *physical* significance, time is equivalent to the space-co-ordinates (apart from the *relations of reality*)"; *Nature*, 17th Feb., 1921, p. 783. (Italics mine.) Similarly Cunningham, "Space and time co-ordinates are only means of specifying a single fact or occurrence"; *Relativity and the Electron Theory*, 1st ed., p. 73. Einstein's later remarks seem to me to convey a suspicion that his standpoint has been misinterpreted philosophically.

[5] *Op. cit.*, pp. 2, 3.

[6] *The Reign of Relativity*, pp. 55, 88.

system of co-ordinates"; [1] here, as always, we are concerned with "physical conceptions". And when (further) we limit ourselves to these, we find that absolute standards can never be completely dispensed with, inasmuch as the *Eigenzeit* and *Eigenraum* of any given reference system are (for that system) absolute and invariant.[2]

(1) From this general standpoint, which I think expresses Einstein's meaning in saying there is nothing philosophical about his Theory,[3] it appears to me that throughout Dr. Carr's volume no adequate distinction is maintained between space and time on the one hand and our systems of measuring these entities on the other; we are carried from the one to the other without any sufficient indication of the vital importance (for Philosophy) of the transition.

The Theory that the results of observations which involve spatio-temporal measurements are conditioned by the velocity of the observer,[4] involves a limiting case which has been too much disregarded in philosophic discussion—the instance, *i.e.*, of observers in one reference system, who obtain, therefore, *identical* results. This identity is of subordinate importance to scientists, because it is comparatively free from mathematical difficulties; but philosophically it is extremely significant, for two reasons. First, because it proves quite definitely that those discordances in the content of our experience, from which so many important philosophic conclusions have recently been drawn, are due to nothing except either (*a*) differences in the velocities—not of the observers, *as conscious observers*, but—of their physical systems of reference, or (*b*) certain conditions (again physical) whose nature, though as yet far from being understood, nevertheless presents aspects which have abstract mathematical equivalents.[5]

These discrepancies, therefore, while they certainly affect most materially the detailed content of knowledge, can have no bearing whatever on the *nature* of knowledge, or of experience, or of reality, in general and as such; unless, *i.e.*, we are going to base our epistemology on the rate at which we happen to be moving, or on gravitational potentials. And

[1] *The Theory of Relativity*, p. 56. *Cf.* Dr. Carr, *op. cit.*, p. 20, at foot.

[2] *Cf.*, "A law of such change which is independent of such relativity," *Reign of Relativity*, p. 98.

[3] In accordance with Einstein's distinction between the scientific principle, and the scientific theory of relativity (*The Theory of Relativity*, pp. 19, 40) I shall denote these by capitals, reserving "principle" for philosophic and general usage.

[4] And further by acceleration, which brings in gravitational phenomena.

[5] *Cf.* Dr. Carr, *op. cit.*, pp. 21-23.

the second reason is that the identity in question constitutes what (as I have already mentioned) all scientists accept as "absolute"—the invariable *Eigenraumzeit* of observers with identical velocity.[1]

But this "absolute" has been quite unduly neglected in recent philosophy, perhaps because of its predilection for that form of original sin manifest in all thought—its relativity. It is, however, at least as important as the variability arising from a mere physical difference in velocity or in gravitational field. It is (further) a simple logical consequence of these premises that the varying results can be exactly correlated, and the formulæ of one observer transformed into those of another. The entire situation is a natural (physical) result of the finite velocity of light, allied with our physiological incapacity to receive stimuli more basal than light signals are;[2] and it is easy to conceive conditions which would altogether exclude scientific relativity. This would be the case if gravitational impulses have infinite velocity,[3] and if we could, through a special sense-organ, directly perceive changes in gravitational intensity.

Quite apart therefore from Einstein's or Cunningham's assertions to the contrary, it is altogether irrelevant to maintain that "the particular concepts with which the principle [Theory] of relativity deals—space, time and movement—are metaphysical, and the essential concern of philosophy".[4] Obviously we have here, at the very outset, that transition from "physical conceptions" to metaphysical which is, I would submit, as yet unjustified and illegitimate.[5] But there

[1] *Cf.*, "The absolute in Nature is not abolished by the" Theory, *Nature*, 17th Feb., 1921, p. 781. Also Prof. Eddington in MIND, April, 1920, p. 145, and Haldane, "change in standpoint gives no change in the actual"; *op. cit.*, p. 402.

[2] I may be permitted to refer to the *Journal of Philosophy*, 14th April, 1921, where I have attempted a simplified presentation of the facts. *Cf.* also: "The difficulties and paradoxes associated with temporal conceptions arise from the finite velocity of propagation of all signals," Campbell, *Physics: The Elements*, p. 552. "We have not taken account of the inaccuracy involved by the finiteness of the velocity of light," Einstein, *op. cit.*, p. 10.

[3] This point is at the moment, I think, undecided.

[4] *Principle of Relativity*, p. v. *Cf.*, Prof. Eddington—"World-wide time s a mathematical system according to arbitrary rules; it has not any structural—still less any metaphysical—significance"; *Nature*, *loc. cit.*, p. 804.

[5] As this point is fundamental I may quote Einstein's own account of the history of his Theory. "The entire development starts off from, and is dominated by, the idea of Faraday and Maxwell, according to which all physical processes involve a continuity of action." He proceeds to trace the enquiry through a number of similarly scientific concepts which include "the *physical* significance of space and time" and "the assumption

is a further ground for the charge of irrelevance. Space, time and movement are not the only concepts that are metaphysical. *Every* ultimate concept is metaphysical; matter, energy, life, mind *e.g.*, in science alone; and the Theory of relativity has no more (and of course no less) connexion with any philosophic conclusions than has, *e.g.*, the quantum theory of energy or the method of chromosome division. It is illogical, if not actually erroneous, to argue that because the Theory asserts that certain results based on spatio-temporal measurements are relative, and because further time and space are metaphysical, therefore philosophic relativity is either substantiated or disproved. I am not here contending either for, or against, philosophic relativity; I merely urge that scientific relativity has but the slightest possible bearing on the question. Scientific relativity is concerned with purely physical conditions; philosophic relativity with the relation between mind and its content, or between mind and reality, within which of course space, time and movement are included. But if it be argued that this inclusion furnishes the required connecting link, the obvious reply is that philosophic relativity is not limited to these, but applies universally;[1] the Theory, therefore, restricted as it is to physical spatio-temporal concepts, can have no direct bearing on the general philosophic problem. It no more follows that because all such concepts are physically relative, therefore time and space are philosophically relative, than that because currency systems are all relative, therefore value, as a metaphysical concept, is also relative.[2]

(2) Dr. Carr advances other conclusions for which it is extremely difficult to find any basis within scientific research itself. He regards the advance from the special to the general form of the Theory as a sufficient ground for subjectivism. "The general principle [Theory] is acknowledged to concern the most fundamental philosophical concepts of the nature of the universe. The essence of it is to introduce

that simultaneity has a meaning independent of the *state of motion* of the system of co-ordinates used". Similarly Cunningham states that Newton's "space and time are natural products of Nature's laboratory, to be purified, perhaps, but not to be rejected as spurious". *Nature, loc. cit.*, pp. 782, 785. (My italics.) *Cf.* Dr. Carr, *op. cit.*, p. 3, on "rejection of space and time".

[1] This is the fundamental principle of Lord Haldane's volume.

[2] The mathematicians whose work lies at the base of the Theory have duly emphasised the essential distinction between space and time, and spatio-temporal measurement systems. *Cf. Journal of Philosophy, loc. cit.*, pp. 214, 215. Also Mach, *Space and Geometry*, pp. 97, 98.

subjectivism into physical science."[1] I have already dealt with the character of the concepts here concerned; but further, both the general and the special Theories rest on precisely the same basis. The former has no peculiar connexion whatever with subjectivism or with the "mind of the observer".

The special Theory deals with uniform rectilinear motion; the general with rotational and accelerated—and therefore, through the Principle of Equivalence, with gravitational—motion.[2] But in what possible sense can this theoretical expansion be regarded as introducing subjectivism into science? Accelerated motion is no more subjective than is uniform, nor is the "mind of the observer" more in evidence when gravitation operates than when it does not. And if it is argued that *all* motion is subjective, or the mind *always* active, the reply is (once again) that these comprehensive statements are too comprehensive, and are quite unaffected by any change in the scope of the Theory; their truth or falsity rests on altogether separate grounds. Even such speculative suggestions as Einstein has put forward have not the remotest connexion with subjectivism, but are strictly limited to physical enquiries.[3]

Thus it is not the "mind of the observer" that is directly concerned by either form of the Theory; it is merely his velocity, or rather the velocity (or its equivalent) of his reference-system. Mind is not active in any unique way in relativity investigation, and relativity as such therefore can confer no new and original status on mind which it does not possess already. I consider this point further in connexion with co-ordination, passing meanwhile to the "independence" of observations.

"It is impossible," continues Dr. Carr, "to abstract from the mind of the observer and treat his observations as themselves absolute and independent in their objectivity";[4] thus positing a relation between observations and the mind, the

[1] *Op. cit.*, p. 21. *Cf.*, p. 20, "introduction . . . of a subjective element".

[2] "Einstein asks us to consider the result of supposing that the distinction between centrifugal force and gravitational is not essential . . . his principle of equivalence" (Cunningham, *Nature*, 11th Dec., 1919, p. 374). "The general form of relativity is founded on the equality of inertial and gravitational mass" (Brose, *Theory of Relativity*, p. 21). "Can gravitation and inertia be identical? This question leads directly to the General Theory" (Einstein, *Nature*, 17th Feb., 1921, p. 783).

[3] "Is the spatial extent of the universe finite? Is inertia to be traced to mutual action with distant masses?" are questions to be decided by "a dynamical investigation of fixed stars"; *Nature, loc. cit.*, p. 784.

[4] *Op. cit.*, p. 21.

character of which has now been finally determined by the Theory. But just as we have seen that the "absoluteness" of time repudiated by the Theory is a purely physical characteristic, so here the independence that is denied subsists in no sense as between the mind and observations, but rather—again a radically different matter—between our scales and units and the observed phenomena.

"The whole relativity doctrine asserts that the measure relations of the phenomena perceived are incapable of determination on any absolute scale, independent of the phenomena themselves. The gravitational field must be included, and must affect the measure relations in every physical aspect";[1] or as Dr. Carr himself expresses this, but without noting its fundamental implications, "it requires us to give up the assumption of an absolute standard of reference for the measurement of the *velocity of a system*".[2] It is therefore always the phenomena and the scales that are here interdependent and relative—not mind and its observations in any direct and unique sense characteristic of physical relativity but absent in other cases.

(3) This consideration applies to some degree to Dr. Carr's later elucidation of his general position in *Nature*.[3] There we find that the reference to mind, which he regards as finally substantiated by relativity, takes the form not (it is needless to say) of any crude subjectivism, but of "a power inherent in the monads to co-ordinate ever-varying points of view. By monads I mean minds as metaphysical reals." And, while, with Dr. Carr, mind is for myself one—if not the sole—clue to the nature of Reality, both as being the highest concrete real of which we have direct experience, and in virtue of what its actuality transcendentally implies, still I fail to see that this belief derives any support from the results of the relativity Theory. The co-ordinating activity of mind remains what it was before; it is merely the co-ordinated *material* that is different, together, of course, with the formulæ that make possible the higher accuracy of the co-ordination. If we survey the whole of the subject matter, this seems to me to be obvious. Gravitation, spectral phenomena, planetary motion, electronic vibration—these have all been already co-ordinated, and most efficiently co-ordinated, by the human mind in virtue of its "inherent power," whether that implies monadism or not. And now this same "inherent power" is supplied with fundamentally

[1] Cunningham, with reference to Riemann, *Nature*, 17th Feb., 1921, p. 786.

[2] *Op. cit.*, p. 22. My italics.

[3] *Loc. cit.*, p. 810.

new data; with new assumptions as to the velocity of light and the possibilities of interpreting gravitational phenomena[1] and geometrical principles. But, epoch-making as this advance undoubtedly is, it in no way concerns the status of mind in its advance to reality; it merely corrects—fundamentally of course—the details of that conceptual content which enables mind to apprehend objective reality.

(4) These considerations apply also to Lord Haldane's treatment of the question, in spite of his explicit exclusion of all subjectivism. Even on this important point his position, so far as his brief references go, is somewhat obscure. Analysis of his epistemology would show, I think, that his objectivism is by no means firmly based. "Perception," he asserts, "is in itself chaotic and formless. It is only by interpretation that we recognise. . . . Into the results apparently yielded by direct sense-awareness concepts have entered with transforming power."[2] But what is perception itself except "interpretation"?—an "interpretation," further, which is the result of the transformation of "direct sense-awareness" by means of concepts. Lord Haldane almost seems to posit two independent agencies, "sense-awareness" or "sensations,"[3] and concepts—the latter acting on the former like

[1] This particular point, though of subsidiary importance as within the whole investigation, seems to me to have been more radically misunderstood than any other. I can see no grounds for the widespread opinion that Einstein has explained—in any final sense—gravitation; much less, of course, explained it away; and this applies to "forces" in general. "Einstein's theory, though it helps us to discover the laws according to which phenomena occur, cannot lay claim to provide a mechanical explanation of them" (*Nature*, 31st March, 1921, p. 134); it is, in brief, descriptive rather than explanatory, although a precise description of phenomena has, of course, the highest possible value. The calculation of planetary motion is more accurate; kinematically, gravitational motions may be regarded as accelerations; and gravitation energy and inertia may become in the end identified. On this point Dr. Carr seems to me to be somewhat misleading. He speaks (p. 11) of "contradictory descriptions of movement"; but the descriptions are not necessarily contradictory; they are merely alternatives, one of which is, for certain limited purposes, preferable to the other. But there still remain "the energy tensor of matter" (Einstein) and "world-mass" (Weyl);—reals, *i.e.*, that are non-mental, and therefore not the product of the "power inherent in the monads to co-ordinate" (Carr). Philosophy, then, is not yet committed to subjectivism, and the "objectivity of the universe" is still something other than "the perception-actions of infinite individual creative centres in mutual relation" (Carr, p. 162).

[2] *Op. cit.*, pp. 40, 119.

[3] *Cf.* pp. 41, 46, 152 on "sensations," "direct sensation," "isolated impressions". I think no serious theory of knowledge sets off from these. Lord Haldane's general position here is curiously similar to Croce's throughout his *Logic*.

an acid on a base; whereas the truth seems to be that some degree of "interpretation" is present from the very beginning of experience—a conclusion, further, more in consonance with his volume as a whole.[1] If, again, "our world begins in sentience. We distinguish our sensations in relations of time and space. Object and subject are phases within a mental process,"[2] we approach, to say the least, perilously near to a subjectivism whose barriers no transforming concepts whatever will surmount. "I cannot get beyond my own senses in immediate apprehension," affirms Lord Haldane;[3] always the crucial test of an epistemology is its treatment of perception; a subject to which I shall return in connexion with observation and experiment.

This however is not the main issue, which concerns the bearing of scientific upon philosophical relativity. I think we find Lord Haldane's fundamental argument expressed in the statements: "Space and time disappear as self-subsistent, and in their place we get a plurality of relative systems. (Einstein claims) to have deprived space and time of their supposed characters as self-subsistent and uniform frameworks of existence, belonging to an altogether non-mental world. Spatial and temporal relations depend on the situations and conditions of observers. The character of space and time is therefore purely relative, and so is their *reality*."[4]

It appears to me that Lord Haldane's "therefore" here is highly questionable, and that it is neither put forward by Einstein himself nor established by Lord Haldane. If we remember that time and space are for Einstein "physical conceptions"—that time is for him "time interval" and space "space interval (distance)"[5] while the "situations and conditions" are throughout also physical—and if also time and space are given their fuller philosophic significance,[6] it is obvious that this "therefore" is merely taken for granted. We cannot pass thus directly from Einstein's physical concepts to time and space in any philosophical sense; and the philosophic principle which Lord Haldane's volume throughout maintains is true or false wholly independently of the results of scientific relativity.

[1] *Cf.* p. 155 on thought and feeling.
[2] *Ibid.*, pp. 158, 197.
[3] *Op. cit.*, p. 155.
[4] *Ibid.*, pp. 39, 83, 88.
[5] *Theory of Relativity*, p. 30. *Cf.* p. 28, "relativity of conception of distance".
[6] Unless this is done Lord Haldane's chapters sink into a mere epitome of Einstein, instead of an interpretation. This wider significance again is placed beyond doubt by the passage just quoted—"we distinguish sensations in relations of time and space"—which cannot, at that level, be "physical conceptions".

For what is the essential issue here? It is that reality must become known under concepts—that knowledge, or experience, or mind, is "foundational of reality"; and I fail to see that scientific relativity has the slightest bearing upon this principle. For it is not concerned with categories *as categories;* it introduces no new ones and it dispenses with none of our earlier ones;[1] it merely accepts the basal categories of space and time and then renders more precise their application to natural phenomena—corrects our measurements of time and space intervals, our estimates of mass and energy. If, at the outset of experience, "sensations present themselves as we distinguish them, in relations of time and space," then science, for its more special and limited purposes, *must* presuppose them; but its increased accuracy in the employment of its fundamental categories is altogether independent of their nature and validity *as* categories. Apart from its refinement and exactitude scientific relativity has in this respect no more philosophical importance than had—to choose an extreme but emphatic instance—the transition from the moons of our ancestors to our calendar months.

(5) The fallacy of any identification of time and space, philosophically considered, with "physical conceptions" becomes further apparent if we view the question from a different angle. This term, from the scientific standpoint, is perfectly justifiable, since science is in the main concerned with concepts. But if we take this to be unqualifiedly true, and if we proceed to argue that space and time are solely concepts, then our philosophy must (in this respect at least) become a merely conceptual Idealism—a "ballet of bloodless categories". Science is preserved from this by its inseverable connexion with perception. "The concept (simultaneous)" remarks Einstein, "does not exist for the physicist until he has the possibility of discovering whether or not it is fulfilled in an actual case . . . he can decide by experiment . . ."[2] Upon this underlying perceptual basis concepts may be reared as high as we choose, even until time and space are wholly dispensed with;[3] but they must, in some way or other, be included within our original content. This indispensable

[1] Unless every fresh mathematical refinement is a "category".

[2] *Theory of Relativity*, p. 22. *Cf.*, "The introduction of mathematical conceptions must be postponed as long as possible. Integration leads to physically significant results only because it corresponds step by step to some physical process" (Campbell, *Physics: The Elements*, pp. 422, 523; also *Nature*, 17th Feb., 1921, p. 804).

[3] "This arrangement does not even need to be such that we must regard x_1, x_2, x_3 as space co-ordinates and x_4 as a time co-ordinate" (Einstein *ibid.*, p. 94. *Cf. Reign of Relativity*, pp. 96, 97.)

condition seems to be completely ignored by Lord Haldane. Perception, we have already seen, is "chaotic and formless"; but further, "physics does not deal with bare sensations, but mainly with the coincidences of *events*, coincidences which are not immediately presented in experience".[1] This statement, as it stands, directly contradicts the very basis of the Theory, whose primary object is to correlate with absolute accuracy the coincidences immediately presented to perception.[2]

This misinterpretation of the rôle of perception leads in the end to a complete inversion of the structure of experience or of reality, which thus becomes a pyramid poised upon its apex. I have quoted already the passage (p. 197), "our world begins in sentience. Our sensations present themselves . . . in relations of time and space." But elsewhere a wholly discrepant account of the development of knowledge is given.[3] Here we start with "bare awareness of change, in which space and time have not yet been discriminated, the activity out of which we build up our conceptions of them. We approximate to intervals neither spatial nor temporal (which) express what lies at the foundation on which we build up our ideas of space and time as relations"; and thus "intervals, neither spatial nor temporal," intervene between the primal sentience and the later spatio-temporal relations. This seems to be a direct reversal of the actual course of mathematical procedure, both historically and logically; for this starts from concrete perceptual experience, and reaches its non-spatio-temporal concepts simply by carrying abstraction farther and farther. These concepts, having been thus attained, certainly constitute a basis for further construction. But to regard them as "the foundation" from which "knowledge is rendered at a later stage particular, by observation and experiment" (p. 98), is a completely different thing; it is merely to reverse the process by which they were first of all obtained.[4] This is evident from the statement (p. 98), "the characters of the relations which we call space and time arise from the movements of bodies changing their situations . . ."; for these aboriginal

[1] *Reign of Relativity*, p. 47.

[2] "Coincidence is the only exact mode of observation and lies at the bottom of all physical measurements" (Brose, *Theory of Relativity*, p. 14). But in this connexion it seems to me that philosophy cannot altogether disregard Einstein's treatment of truth (*Theory of Relativity*, pp. 2, 124).

[3] P. 96. Abridged, but I think not distorted.

[4] Prof. Eddington also seems to have adopted this fallacious method. *Cf. Journal of Philosophy*, 21st Oct., 1920, p. 609.

"movements, bodies and situations" are either all implicitly spatio-temporal or they are meaningless.

(6) An analogous misreading of the character of mathematical abstraction dominates Lord Haldane's treatment of gravitation and inertia, and leads him first to confuse with one another two distinct principles of equivalence—(*a*) of inertia and gravitation, and (*b*) of gravitational and accelerated motion—and secondly to set up an unfounded contrast between Newton's first law of motion and Einstein's law of gravitation.

The Principle of Equivalence proper holds true in itself only as a purely kinematical abstraction; it expresses an equivalence (for certain purposes) of motions, and nothing more; or postulates "that phenomena in a field of gravitation and in a field produced by acceleration of the observer" are equivalent.[1] It certainly does not justify the categorical statements: "of force physicists know nothing. The notion of force had lost meaning for physicists."[2] Such a view is of course permissible, but it is not incontestably implied by the general Theory, except, as I have said, as a kinematical abstraction.

Dr. Campbell, *e.g.*, denies "that force is properly regarded as a derived magnitude at all; it is fundamental, as volume is fundamental";[3] while Einstein's references to forces are frequent. Even in his classical illustration of "the man in the chest," a "being begins pulling at this with a constant force";[4] but Lord Haldane, in the parallel instance on page 89, ignores both the "being" and the force, and thus loses sight of the essentially abstract character of the Principle, which, with the indispensable "if," is clearly presented on page 57.

But when we turn from this equivalence between gravitational and accelerated motion to the equivalence—or (perhaps better) identity—of gravitation and inertia, quite other concepts are involved. To be strictly accurate we should speak, to begin with, of gravitational and inertial mass; and mass, further, as interpreted in terms of energy.[5] From this standpoint their identity can, I venture to think, be established on

[1] Eddington, *Space, Time, and Gravitation*, p. 212. Like all other principles it has of course important implications.

[2] *Reign of Relativity*, pp. 57, 89.

[3] *Physics: The Elements*, p. 392.

[4] *Theory of Relativity*, pp. 51, 67, 80. *Nature*, 17th Feb., 1921, p. 783. *Cf.* Weyl, *ibid.*, p. 801: "pondero-motive force of the electro-magnetic field".

[5] Einstein, *Nature*, *ibid.* Brose, *op. cit.*, p. 21. *Reign of Relativity*, p. 57.

general principles quite independently of scientific relativity.[1] But whatever its true basis may be, it does not bring Newton's law into conflict with Einstein's.

In the first place, Lord Haldane's explication of inertia is seriously defective. This is, I think, the direct result of his repudiation of force. But in any case it is inaccurate to say that "a body remains at rest or goes on in the path in which it is moving in continuation of its actual motion".[2] A body remains at rest only when no force acts on it. I grant that we do not understand the nature of force; but that the state of rest here involved is strictly conditioned cannot thus be ignored. "Actual motion" again is continued only when rectilinear and uniform and (once more) under the action of no force. So that it is meaningless to say "acceleration . . . may be regarded as due either to gravitation or to inertia".[3] Given a force, the acceleration is determined by the inertia,—a case wholly different. "The same quality of a body manifests itself according to circumstances as inertia or as weight";[4] but here Lord Haldane has left the "circumstances" out of account altogether.

Similarly there is no conflict, such as seems to be implied on page 98, between Newton's law and Einstein's. Newton's law holds in a Galilean domain, wherein "isolated material points move uniformly and in straight lines";[5] and upon it, as a foundation, Newton based his law of gravitation. This now proves to be merely approximate, not because his first law is not true, but because he did not anticipate that "almost all physical quantities are functions of velocity,"[6] and that therefore mass and distance vary with systems of reference.

All this implies, finally, that what philosophy has to recognise in scientific relativity is simply an increased degree of accuracy due to the greater exactitude of physical concepts; which means, again, that little, if indeed anything, truly metaphysical is in question at all. The established conclusions of the Theory will contribute to the future Philosophy of the universe; but this involves neither a complete revolution in fundamental concepts, nor any substantial advance in the Idealist view of experience and knowledge. "Change in standpoint," once more, "gives no change in the actual".

[1] Mach has advanced a view of this kind, but I have not read his work.
[2] *Reign of Relativity*, p. 89. [3] *Ibid.*
[4] *Cf.* again the chest illustration, *Theory of Relativity*, chap. xx., and p. 65; also *Reign of Relativity*, p. 57.
[5] *Ibid.*, p. 100. [6] Richardson, *Electron Theory of Matter*, p. 322.

IV.—A THEORY OF PERSONALITY.

By Wincenty Lutosławski.

I. Self and Personality.

My first elementary knowledge of myself, when I began to distinguish myself from others, was the ordinary representation of a body moving in space, and animated by mind. Mind and body, however, were not yet clearly distinguished from each other, and activities of the mind were credited to the body or to its parts, as when we speak usually of a feeling heart or of a thinking brain. Many educated persons, and even distinguished thinkers, if their thought is chiefly directed towards material appearances, have no deeper knowledge of themselves than children.

Moral pain, the habit of contemplation, and, to a certain extent, also the study of the history of human thought and action, have led me, like many others, to distinguish more clearly the body from the mind, and to recognise the thinking and feeling subject from within as a spiritual being, as a real thing, or as philosophers say, a substance, and as the first original model of every conception of other existing things.

The great difficulty of expressing in any foreign language the particular conception of one's own reality has been experienced by those who, writing in English on Sanskrit thought, used the term Atman, as having another meaning than the Self, the Ego, the spirit, or the soul. In the Polish language we have the peculiar term *jaźń*, which also has no exact equivalent in English, though it may be rendered by Self. Here I shall use the term Self in the meaning of the Polish term, in order to avoid the introduction into an English text of a foreign word containing two letters unknown to the English alphabet. But this Self, as I understand it, is much less abstract than the Self of English writers or the *Atman* of Sanskrit thinkers. It is the full reality of a conscious subject, with all his thoughts, feelings, wishes, and

perceptions. All these contents of consciousness are events happening in me, in my own Self, not in my body, though I perceive appearances through the organs of my senses, and though I may will and produce external events in the material world of appearances, perceived through the senses. I remain myself despite all the variations of the contents of my consciousness.

A further step in the development of my knowledge of myself was the absolute and indestructible certainty of the inevitable persistence of my Self after the dissolution of my body. This certainty is different from mere beliefs as well as from inferences obtained by discursive reasoning. Belief in immortality is based on the personal testimony of those who know somehow that they are immortal. This knowledge is not similar to any other knowledge of facts or relations. In my experience, as in the spiritual experience of many others, it has been a sudden revelation (ἐξαίφνης, Plato, *Symp.*, 210*e*), coming after years of mere thinking on this matter, and of believing the testimony of others. I knew at that time (1885) most of the arguments for immortality advanced by thinkers and believers. But they did not then appear to me to be definitively convincing. Suddenly came immediate intuitive certainty, with the evidence of mathematical axioms, and it came to stay. My certainty that I am and shall be, whatever happens to my body or my mind, since it came, has never disappeared for a single moment, neither in the waking state, nor in dreams, neither in health, nor in illness.

I know from books that this sudden discovery of the absolute existence of one's Self as a Being independent of the body has been made by many others. If it is genuine it leads to a permanent and continuous consciousness of one's indestructibility. It has been called by the Polish philosopher, Wroński, *autocréation*, as it starts a new relation to one's body and mind, different from the mental attitude of the vast majority of men having mere beliefs, or endeavouring to reach a knowledge of real existence by reasoning.

In 1894 I had a conversation on this subject with Prof. Henry Sidgwick, who was so much impressed by my attitude, that he attempted to give to the readers of MIND (October, 1894) an account of this talk (*A Dialogue on Time and Common Sense*). But he admits himself that when he tried to write down this talk he had forgotten too much of it, so that he had to allow imagination to supplement the defects of memory "trying to preserve the general attitude of our minds towards each other". But to me his account of my attitude proves that he did not understand me at all, and I was amazed

at the possibility of such a complete misunderstanding.[1] If such a highly intelligent thinker as Henry Sidgwick, with his wide learning, could not understand a very common young man, full of his discovery of concrete real existence, then there is no hope of a general recognition of this experience, limited as it is to a minority of psychologists and theologians.

The majority of my readers will consider my discovery as a subjective illusion. But a persistent illusion, which lasts throughout life, is at least a psychological fact, and deserves the attention even of those who never had it. There is a great difference between the mental attitude of those who have such an absolute and lasting certainty of their own existence—(it seems to have been reached already by many disciples of Pythagoras and Plato)—and those who have no such certainty.

However rare this certainty is, it is not yet the last stage in the development of the intuitive knowledge of one's Self. The final consecration of this continuous and permanent consciousness of one's real existence is the further discovery of our pre-existence. Pre-existence does not follow as a rational consequence from immortality. Many believers in immortality shrink from pre-existence as from a terrible heresy. Arguments in favour of pre-existence are less decisive than the usual proofs of immortality. There is a widely spread prejudice that pre-existence has been condemned by the Roman Church, and the great majority of Catholic priests believe in this condemnation, for which, however, I could not obtain any proof from the most eminent professors of the Catholic universities of Louvain and Fribourg.

For me the subjective certainty of pre-existence is parallel to the certainty of immortality, and it is not a conclusion from any line of argument. I know that I have existed before this life, either on earth as man, or elsewhere in similar conditions. This knowledge is for me not less evident than any mathematical axiom, and needs no proof. It is the foundation for many other convictions, and the explanation of many difficulties; it does not contain the slightest difficulty for my mind. I reached this certainty later than the certainty of immortality, but since I reached it, more than thirty years ago, I have never lost it for a single moment. And so far as I know the number of those who share this certainty is rapidly growing on earth. All the great Polish poets and thinkers during the nineteenth century had it: Wroński,

[1] He did not even understand that it was not fair to call a Pole a Russian professor because he taught at a Russian university.

Cieszkowski, Trentowski, Towiański, Mickiewicz, Krasiński, Słowacki, Goszczyński, Wyspiański—to mention only the greatest.

My eternal existence as a true Self has its experimental limitations owing to my close connexion with a body. It is not certain that a Self must always be incarnated in a body, but it is highly probable that each human being has experienced many incarnations. The incarnated Self lives in a set of conditions; and personality implies the sum of these conditions. A person is an incarnated Self considered in all its relations to the external world and to its own past and destiny. A person owning body and mind depends for the conditions of its existence on the total heredity of the chosen body and on the acquired experience of the incarnated Self. Whatever I have ever had as contents of my consciousness may be under certain circumstances recalled to my memory; and, even when forgotten, the past experience of my Self has an influence on my present state and on my ability to feel, to think and to act in a certain way, which characterises my individuality. Thus my actual condition is due to a double line of influences: the succession of bodies from which descends my body, and the succession of mental states which my Self has experienced in past incarnations.

The Self is not by itself a person: it is only so in given conditions of dependence on a part of the external world, with the possibility of influence on the immediate environment. The person has therefore not the same permanent identity of substance as the Self. Each Self creates by incarnation a succession of persons. Even within one incarnation, despite the continuity of one and the same body, the same Self can create different successive persons, like an actor who plays different characters on the stage of a theatre. Something of this kind happens in real life whenever an act of will or an external influence causes a thorough change in the personal conditions. Thus a girl sometimes completely changes her personality by marriage, especially if she marries very much above her rank, or if she gives up a creative original activity in order to devote herself to her husband and her children. She remains the same Self, but many personal conditions, as for instance name, wealth and position, are changed.

Not all the personal conditions of the same Self can be thus changed within one incarnation. For instance we cannot change our physical sex, nor can a thoroughly stupid person become clever or wise. A great poet like Dante or Shakespeare could not easily become a truly great statesman, though both have said many true things on statesmanship. We

have seen recently an eminent Polish musician fail completely when he attempted to rule his country as Poland's Prime Minister. Sometimes the same man succeeds in living several different lives in the same incarnation, as for instance a gifted painter who during the war became a famous general.

Personal existence has a variety of conditions which determine the activity of the Self. The classification and definition of these conditions or marks of personality is an important problem of metaphysics, and if we wish to understand thoroughly personal existence we must distinguish what depends on the essential quality of the Self from what is given to that Self by its particular place in space and time and by its relations to other Selves and persons. A complete characterisation of a person is only possible if we are able to enumerate all the conditions or relations which cause this person to differ from all other persons. Therefore we have to ask what makes human beings different from each other and how many kinds of human existence are possible? The answer to this question will lead us to understand the causes which determine the individual destiny of each Self in each incarnation and the succession of different persons animated by the identical Self.

A correct classification of human conditions or of the marks of human personality has, besides its mataphysical importance, also moral and social applications. It enables us, for instance, to judge the value of the current doctrine of class warfare. Whether workmen and capitalists are really different classes of mankind depends on what principle of classification we adopt and what differences we consider as the most important.

The conditions of personal existence depend either on the Self and its past experience or on the body and its inheritance. They may be permanent, as for instance sex, or variable as for instance age, wealth, and health. Some of them appear to be innate, as for instance genius, other conditions seem to be the goal of many efforts, as for instance education, or moral perfection.

A great variety of opinions is possible on the subject of the true classification of men, based on the distinction of the real conditions or marks of personality. I fail to find in English a quite convenient term to design these qualities or conditions of personal existence and I do not remember any attempt at their complete enumeration, definition, and classification. Whenever I have asked anybody in how many ways a human being may differ from others I have noticed that this problem has escaped the attention of the students

of human life. If I am mistaken, I shall be very grateful for the indication of such investigations. My own classification of sixteen chief marks of personality will be the final outcome of this inquiry into the meaning which each particular mark, condition or quality has for individual destiny.

II. Sex as a Mark of Personality.

The most obvious difference between human beings considered in their variety is the difference of Sex; the first question to be asked about a person whose conditions of life we wish to understand thoroughly, is whether it is a man or a woman. A general theory of personality must therefore explain the true meaning of sex.

At first sight it might appear that the whole difference of sex depends only on the shape and function of the organs of reproduction. Reproduction being one of the many functions of life and not inevitable in every individual life, it would seem that sexual difference is not essential, as many human beings live without ever using their organs of reproduction and without even being aware of them. When I pray or study, I seem to be simply a human being, neither man nor woman. The most properly human activities are common to both sexes. There is not a single thought, no kind of emotion, no ideal of human activity, which could not be common to persons of both sexes; and every possible experience of one sex can be fully understood and assimilated by the other sex. The very existence of reproduction can be entirely forgotten for weeks, months, and years by those who are engaged in intense intellectual work or in spiritual contemplation of the highest realities.

From such a point of view the sexual difference seems to disappear, or to be of the same secondary importance as any other purely physical difference—for instance, the difference of height or weight or muscular strength. For certain special purposes all these differences are very important, but they are not essential in the sense of a general classification of the marks of human personality. Is not sex also such a difference, which is only important for a special purpose, that of reproduction? We may ask besides whether reproduction has to be looked upon as an absolute and general necessity or merely as a temporary remedy for the imperfection and decay of our bodies, due to an ancient calamity known as the fall of man or original sin in our religious tradition?

Such questions might arise if we limit our knowledge of sex to the facts of reproduction, which in themselves are not

peculiarly human, as there is such a close analogy between the reproduction of human beings and that of animals. But outside the narrow limits of biology there is a vast field of sexual experience which is properly human and we cannot fathom the mystery of sex without referring to that wider spiritual experience. One of the most manly men in human history, Dante, met a woman a few times in his life, and described his experience in his *Vita Nuova*. Much later, towards the close of his life, in the ripest and greatest of his works, he still considers Beatrice as more closely related to him than his wife, by whom he had several children. His marriage appears to him, when he speaks to the world at large and to the most remote posterity in his immortal poem, as an infidelity against his first love.

This contrast between the spiritual reality of love and the material link of marriage is not an isolated experience peculiar to the great Italian poet. It permeates the whole of human life and literature and it shows that sexual experience is by no means limited to the facts of copulation and reproduction.

Moreover, on the highest plane of spiritual life, in the mystic experience of the immediate contact of men and women with their Creator, again the sexual difference manifests its power, even when we compare the confessions of men and women so closely related to each other as, for instance, Theresa of Avila and John of the Cross. Both being equally indifferent to physiological reproduction they still remain male and female, and every page written by one or the other of these great Carmelites is easily recognised as masculine or feminine. Both agree with Solomon and other mystics in their habit of using images taken from sexual love in order to explain their mystic experience of divine love.

If we look at the widest range of sexual experience, including not only what has found an expression in literature or art, but also the infinite variety of individual destinies shaped by sexual relations or impressions, if we take into consideration that there are many other sexual relations than the intercourse between lovers or between husband and wife, then we are led to the conclusion that sexual onesidedness is one of the most fundamental limitations of Self, constituting its personality, and that every human being remains under the spell of this strange onesidedness throughout life, even though he be entirely unaware of it.

The body being an expression of the soul, a symbol of spiritual reality, the bodily sexual difference corresponds to a fundamental spiritual difference and cannot be limited to the

single function of reproduction. If our knowledge of the human body were deeper, even a single hair taken from any part of the body would betray the sex of the person to whom it belonged. The difference between the organs of reproduction is only more evident and known because we have had special motives to study it. But every other organ in the human body will manifest its sexual character when physiological investigation has gone far enough. For the present we are unable to define these sexual differences otherwise than, perhaps, by certain averages of the dimensions of the whole body and its parts. Every dimension may be found in both sexes, but the average will be different for each sex.

In order to reach a definition of the spiritual aspect of sexual difference we have first to decide whether we consider this difference as a permanent state of the innermost Self, or as only a condition resulting from incarnation. Am I a man because my pre-existent and immortal Self received from my parents a masculine body, or have I myself built a masculine body out of the matter furnished by my parents, because I am a masculine Self? And if I am a masculine Self, is this masculinity something that can never be changed, or only a passing phase of my spiritual existence?

Such questions are not likely to be asked by everybody. Most men do not care to know such things or they do not admit the possibility of such knowledge. Most of us have not even a clear reminiscence of our own past lives and it is still more difficult to ascertain the past lives of others. Without such a memory how could we pretend to know the eternal destiny of our Selves and the mystery of sexual differences in body and mind?

We must here follow the same method as in every other investigation of reality. Every science is based on intuitive guesses which are verified by some kind of objective experience. Conformity with the experience of our senses is the test of physical hypothesis. But there is a vast field of spiritual experience not less evident than the experience of the senses. Dante's love of Beatrice was to him a fact not less than the colour of her eyes, though everybody could see the colour of those eyes, while very few men can understand such a love or have themselves experienced similar feelings.

It is true that only very few human beings obtain an absolute certainty, first, of their immortality, then of their pre-existence, and finally of their sexual destiny. But an intuitive certainty as to their sexual past is possible for those who earnestly strive to know the truth about themselves. I

know for certain, and with the same degree of unchanging certainty as I know of my immortality and pre-existence, that my actual masculine sex is not imposed upon me from without by the conditions of my conception in this particular incarnation. It is my own work and corresponds to a pre-existent state of my own Self, which, however, was not always the same; and I know that in my eternal past I have experienced both sexes, though certainly not in such alternation that after each masculine life a feminine life should be the rule. I do not know whether I need ever be a woman again, but I am certain that I have been many times a woman. There is nothing in the life of woman totally foreign to my own Self.

Such a subjective certainty is a psychological fact which, as the testimony of a single individual, might be a personal illusion. But if it is a genuine and spontaneous certainty it is as permanent throughout life, when once reached, as the similar certainties of immortality and pre-existence.

I distinguish the genuine experience of such certainties from the ordinary belief in the testimony of others. Such beliefs are opinions which may be imparted to suggestible people but also lost by them. The genuine intuition is a permanent acquisition reached by meditation and contemplation which reveal to us the mystery of our own real being. A definite knowledge of one's self is the metaphysical explanation of the possibility of every other knowledge of anything else, and it stands as open as the evidence of the senses to all those who seriously endeavour to attain it. For those who have no such experience the testimony of one who has it is simply a hypothesis which can be tested by the wider objective experience of sexual life.

Let us, therefore, formulate this general hypothesis which will help us to account for the facts of sexual life. Each Self experiences alternately, in phases which last much longer than any single human life, two opposite spiritual states which within our earthly existence manifest themselves in bodies of opposite sex. These alternate phases of the spirit follow each other according to an inward determination, as the consequence of some original deviation from equilibrium, like the oscillations of a pendulum. This original deviation is what is called the fall of man. It has been brought about by ourselves. At each stage we may be more or less distant from equilibrium, and the process which tends towards the opposite state goes on during incarnation, so that a male spirit, having built a male body, may in its inward growth during the same incarnation reach spiritual femininity, and

the reverse. This explains how it happens that we know women with a male spirit and men similar to women.

The difference of sex is known to us by intimate experience and cannot be stated in terms of any other order. There is no virtue or vice peculiar to one sex exclusively of the other; whatever can be said of men or women in general will in particular cases apply to the opposite sex. Even the definition of masculinity as predominance of activity or of femininity as predominance of receptivity will not exactly fit all the individual cases. There are very active women and very passive men. Neither is courage the monopoly of man nor purity the privilege of woman, though great courage is more frequent among men and perfect purity among women. The tendency to define sex by something else or to explain the sexual difference by a combination of other qualities is not compatible with a full and clear understanding that sex is a fundamental mark of personality, rooted in an essential state of the incarnating spirit.

The sexes are really different and opposite classes of mankind. There is an agelong opposition between them and a real warfare, the most genuine class warfare in human life. The predominance of muscular strength in primitive social conditions has kept women terrified and enslaved. Every growth of civilisation means emancipation of women from sheer masculine brutality and increases their influence on social and political life. Women, when they have obtained in every respect equality of opportunities and of rights, will still remain women and they will not avail themselves of all their victories. For ages they have freely devoted more time and industry to music and still they have not produced a single musical composer equal to the greatest male musicians. Even the most feminine musical genius (Chopin) has taken a male body for his incarnation. If our parliaments were filled with ladies, it is not likely that a great statesman would arise out of their ranks. Whenever a spirit comes to this life with original creative faculties, he appears as a male. Genius is essentially masculine and even great talent is found oftener in men than in women. We might explain this by the actual social condition of mankind, in which men still prevail.

If, however, there is somewhere a world ruled by women, it is not at all likely to follow the masculine fancy of Aristophanes. On the contrary such a world would be probably a better world than ours. Women generally are better than men. They are less selfish; but they have also less in them of their own and they need fecundation in body and mind by men.

Sexual attraction between men and women, from the lowest concupiscence and carnal passion to the highest perfection of pure love, works for the diminution of sexual one-sidedness. Carnality exhausts itself in man by loss of virility, in women by maternity, in both sexes by disease resulting from wrong indulgence. In love the lovers impregnate each other with their opposite sexuality. Men acquire the feelings of women and women masculine capacities. Widows have often continued the work of their deceased husbands.

In the long struggle between the sexes there is one great feminine victory due to Christianity: the ideal of indissoluble marriage. If two beings of opposite sex, with the full understanding of what it means, join each other in a truly indissoluble union, they acquire a peculiar sexual experience, not accessible to those who marry on the understanding that they may divorce. Dissoluble unions are inferior, not only morally but also in the sense of mutual absolute possession (and complete satisfaction of all the senses), to true indissoluble marriage.

The modern agitation in favour of divorce is a misguided aspiration towards the same ideal of indissoluble marriage. People want to dissolve such unions as are not true marriages, in order to enable everybody to meet the true partner for a really indissoluble marriage. But they are not aware that by overthrowing the public sanction of absolute indissolubility they destroy precisely what they desire to obtain. A divorced woman can never fully believe in the definitive character of a new union, as those believe who take the risk of a solemn affirmation and obligation of indissolubility, without any possible recourse to law in order to justify or mend their mistakes.

The indissolubility of marriage was unknown in pagan antiquity. There remains even now a higher stage of indissolubility to be reached, beyond the claims of the Christian Church. The Church sanctions a kind of polygamy in the successive marriages of widows and widowers. Strict monogamy and absolute indissolubility would give only one wife to each husband in each life, as death should not be considered a motive for divorce. We may go even one step further and imagine the same feminine Self associated as wife to the same masculine Self in successive lives. Finally such a close and eternal relation of two spirits might exist that they should have been to each other alternately husband or wife in successive incarnations.

This is the logical development of the ideal of strict monogamy and absolute indissolubility of marriage. Such a lasting

link explains the perfection of certain marriages. A truly indissoluble marriage excludes not only every infidelity, even previous to the first meeting of the lovers, or posterior to the death of one of them, but also every quarrel or serious dissension. If such a perfectly indissoluble union did not exist on earth, it would still remain the dream of all true lovers. They wish to share mutually all their thoughts and feelings, to guess rightly each other's minds, and to meet naturally and spontaneously each other's wishes. Such perfect love has not only been imagined by poets, it is the final goal of human sexual experience.

But the more we progress in this direction of absolute perfection of love and indissolubility of marriage, the less can we expect such spiritual realities to be governed by external legislation or enforced by the decrees of our judges. The law cannot ensure love, and divorce legislation cannot annul truly indissoluble marriage.

With the increasing perfection of social life public opinion will esteem more and more those who commit no mistakes in their sexual choice. But those unhappy beings who have not yet reached such a level of sexual discrimination will in such a society be able to get rid of insupportable partners without shocking proceedings, by mutual consent and the tacit acquiescence of the wise.

We cannot expect such an acquiescence as long as the mistakes are frequent and the consequences cruel to children and other innocent victims in a still very imperfect society. We are responsible for all the consequences of our mistakes. In each particular case many things should be carefully considered before the parents of a child dare to deprive it of all that the common life of a family implies.

Endurance of an imperfect union may be the best preparation for the final discovery of the right partner in a future incarnation. Those who have once made a mistake are particularly liable to commit other mistakes and therefore no safer advice can be given to them than the exhortation to endure what they have brought upon themselves. Those few who are certain of having discovered their true and definitive destiny will neither ask advice nor listen to it.

The doctrine of counterparts, as attributed to Aristophanes by Plato in the Symposium and later popularised by Swedenborg and Thomas Lake Harris, is not a passing fancy. It has returned again and again with obstinate insistence since the tale of Tristan and Isolde was first told. Its consequences are very serious; for, if each of us has only one true counterpart, we are bound to give up every other union, whatever

the consequences may be to us or to others. This is the romantic conception of love, justifying every breach of the law and every infidelity to pledged faith.

On the other hand, if love is not such a transcendental and absolute reality, if true marriage depends on the mutual goodwill of any two persons who understand the rules of the game, then there is no need to break any existing bond as long as we can improve it, and it would be silly to hope that a future union will be happier at the cost of an avowed past failure. This is the classical doctrine which condemns the romantic view as a perverse invention of the evil spirit. Social peace and moral order seem to be safer in an unromantic world, where the stability of sexual unions does not run the risk of sudden revelations which overthrow every existing link and obligation.

According to the current view the classical doctrine is Christian and romantic madness is pagan. But the original classical marriage of Greek or Hebrew antiquity has been always essentially dissoluble, while indissolubility has been introduced into the marriage laws by Christianity; and it is nothing else than the legal expression of the romantic craving for absolute union. Romantic love is the spiritual justification of Christian marriage. Christianity has established as universal law what had been the highest voluntary experience of exceptional lovers. The fulfilment of the Christian law is humanly possible only under the condition of romantic love. The miracle of such a love has been discovered by mediæval poets and confirmed by such enthusiasts as Swedenborg or Thomas Lake Harris. A single example of positive experience is more decisive than thousands of failures which appear to contradict such experience. Two lovers who are certain that they were made by God for each other and for nobody else, are more reliable witnesses than any number of Don Juans who have sought their counterpart in vain and have still gone on believing in final success against their own experience.

But even if we grant that such reliable witnesses exist, their testimony does not justify a sweeping generalisation. They may be very rare exceptions and are likely to be such exceptions, for perfect love can exist only between perfect beings at a very high stage of personal development. Such perfect beings will not easily break existing obligations even if they have made a mistake in marrying the wrong person.

For the generality of mankind there is nothing lost if everybody endures what he has brought upon himself by his own free decision. Those exceptional beings who are fit to have a true

counterpart are not likely to be deceived by rash decisions into unholy unions or they will find a way out of such a wrong union without doing harm to anybody.

Thus we can conciliate the classical and the romantic view of love and marriage. Classical marriage, if faithfully kept, prepares romantic love in a future incarnation, or is the outward form of an existing romantic love.

The difference of sex influences also other human relations besides love and marriage, namely friendship, fatherhood, motherhood, and brotherhood. There is the possibility of pure friendship between persons of different sex, which will not lead to exclusive love and will still be a feeling different from friendship between persons of the same sex. The full growth of such friendships free from temptations appears to be conditioned by the experience of true exclusive love which feels no jealousy. Only those who have found their love can peacefully enjoy innocent friendships with the other sex. Otherwise every such friendship is threatened by the sudden revelation of love which spoils its purity.

The real differentiation of sexual love and sexual friendship presupposes the emancipation from superficial sensual attachments which are not exclusive. There is a succession of degrees in sexual experience which starts by animal carnality and ends in true love distinguished from pure sexual friendship. That so many men still disbelieve in such friendship proves only that they are equally ignorant of true exclusive love and see in every woman a possible mistress.

The relation between father and daughter or mother and son implies true friendship and something besides which is sexual fatherhood and sexual motherhood. A father loves his daughter otherwise than his son, but such a differentiation of sexual feelings is the ripe fruit of a long growth of the soul.

Also the relation between brother and sister differs from the brotherhood prevailing between persons of the same sex. No definition of these feelings is possible and very few individuals experience them fully. They are not a necessary consequence of the common origin of two persons from the same parents, as physiological brotherhood does not necessarily imply spiritual brotherhood, and this last is possible also without consanguinity.

The influence of sex permeates not only all personal relations between persons of different sex, but also every manifestation of human activity. Men and women are able to do the same things in a different way and we require a wide experience of life with a deep consciousness of sex to

appreciate this diversity, which confirms the hypothesis that sexual difference has its root in a pre-existent state of the Self and not in the structure of our bodies.

The form of the body is a symbolic expression of those spiritual realities which appear as masculine expansion and feminine receptivity, or virile strength and virginal beauty. There are degrees of sexuality in body and mind and a person may be more or less manly or womanly, in spirit as well as in the body. The body does not always correspond exactly to the spirit, because we have such bodies as are the expression of our spirit at the time of conception, with the limitations imposed by the chosen ancestry. The spirit builds the body out of the blood furnished by the parents and every builder is hampered by the imperfection of the materials used.

Conception depends on a peculiar relation of three spirits, those of the parents and the incarnating Self. Only when true love unites the parents can a Self of the highest kind accept their body. Imperfect unions of selfish and carnal people furnish the opportunity for the incarnation of lower spirits. The emotional and spiritual attitude of the parents towards each other and towards God in their union has a greater influence on the character of their children than physical heredity. Parents who are aware of this may attract towards their bodies by humble prayer and faith, in unselfish devotion, the highest kind of incarnating spirits, who come down on earth not because they crave for sensual life, but because they wish and intend to serve and to help others by improving the conditions of human life on earth.

This incarnation of the highest spirits, of men of genius and of Saints, has been usually worked unconsciously by pious parents united in true love and guided by higher inspiration. Conscious striving for such a fecundation transforms deeply the marriage relation and may be considered as the highest human Art, as it calls into being not images or symbols like the other arts, but living persons, incarnated spirits. They receive a strong and beautiful body from their loving parents and they give them heavenly bliss; for there is no joy greater than the rejoicing of a father or a mother at their children's attainments, if their whole life was directed towards this goal.

How such a result can be obtained those who are united in a consciously indissoluble union for mutual help towards ideal perfection learn easily by claiming boldly from above the necessary inspiration and acting up to the light which is never denied to them. They will be guided from step to step in their endeavours; and every pair of lovers entering this

noble competition will be amply rewarded for their unselfish devotion and their repudiation of vulgar gratifications.

If our human sexual life is thus explained by the conception of a spiritual sexuality pre-existing to its bodily expression, there arises the difficulty of explaining how it is possible that sexual life extends beyond and below humanity, while we cannot credit animals with the spirituality of human loves. Sexual life in beings lower than mankind seems to throw a singular light on human sexual life which in external appearances sometimes resembles closely that of lower animals.

The only way out of this difficulty is the supposition that what we know as the evolution from the lower to the higher forms of the body is not a primitive process, but a consequence of a previous fall of the spirit. Thus though, in the history of our earth, life seems to have risen from animality to humanity, humanity is older in the universe than animality and there is truth in the tradition that the creation of angels has preceded the creation of man.

Therefore we are right in interpreting the sexuality of animals by human sexual experience, not the reverse. In every fecundation a spirit precedes the body and is builder of the body. The sexual difference in the animal world has the same fundamental meaning as in the human world, only heredity dominates much more the generation of animals, without excluding the possibility of feelings and strivings in animal consciousness which are akin to human experience and imply an obscure tendency towards the recovery of the lost equilibrium, a tendency which is at the bottom of the mystery of sexual differentiation.

The future equilibrium, as the last goal, need not be the same as the lost equilibrium or the starting point of sexual life. In this future equilibrium sexual difference may still persist; and the Catholic cult of the Virgin, which is also a manifestation of sexual consciousness in the believers, would thus find its justification.

Sex would be then the result of a *felix culpa*, which, however, for its atonement does not require the annulment of this duality of being, which is known to us as sexual life. The mere onesidedness of sex may be overcome otherwise than by the monotony of asexuality and the whole of human sexual experience would then appear as a device of God for the gradual extinction of our selfishness by showing us in the opposite sex an object of our most immediate and spontaneous love.

V.—DISCUSSION.

THE MEANING OF 'MEANING'.

DR. SCHILLER'S reply in the October MIND to my discussion in the July issue contains a number of misunderstandings and misstatements of my views which I feel it my duty to correct.

(1) I did not say that, in looking for the 'I,' what *my* "attention really fastens on is some obscure bodily sensation—if not the tension in his head muscles, then the rush of blood in his arteries": I said this is what Dr. Schiller's attention really fastens on when he thinks he has immediate experience of 'activity'—in this following James. For me, the 'I' is not one datum or feature of experience among others; it is *all experience de-objectified*. In perceiving, that is, a sensuous state (of sound, taste, smell, vision) is used as the sign of an object; it conveys the object only in the form of a 'meaning'; and it does so because we adopt the motor attitude appropriate to the object. Now at the moment of perception, being intent on this meaning, we cannot be aware of the sensuous state. That it existed at that moment, however, we learn in retrospection, when we consider that the meaning was brought before us only by the sensuous state used as a sign—in other words, that the apparent existence of the object was really the existence of the sensuous state or 'I'.

(2) Nothing could be more untrue, then, than to say that I make the ego an "illusion"; it is rather those who look for it in some single feature of consciousness, such as 'activity,' who are in danger of making it an illusion. Dr. Schiller says that 'activity' is not an observable object: but then what is his empirical evidence for it? Does he distinguish between things that are observable objects and things that are merely experienced? An ego that is a sensuous state can be *found*—in retrospection as the ego, and even in perception as the apparent existence of the object. Or is the fact to which he refers our general grasp of the situation, our sense of our total meaning, conceived as one and directive? I would point out that this is a *sense*—*i.e.* it has a sensuous state, however vague and difficult to classify, as its vehicle, and so conforms to my theory of the ego. I wish I could feel sure that Dr. Schiller is not trying to re-establish that conception of consciousness as a 'pigment' or 'menstruum' which James condemned in his article 'Does "Consciousness" Exist?' He seems to me to be drifting back from the strictly empirical psychology of James to something like a spiritualistic psychology.

(3) Nor can I admit that my sensationalist 'I' is less truly active than his quasi-spiritualist 'I'. Sensuous states, on my theory, are efficacious (it is only given-essences or 'meanings' that are not so); a motor attitude is necessary to constitute cognition, and to make the sensuous state convey a meaning; the 'I,' considered with reference to its consequences, is will: what excuse there is for labelling me an 'intellectualist' and a contemner of activity, I am unable to see. Unless it be that I do not let the will co-operate in determining the content of knowledge, but wish cognition to show me the universe as it is.

(4) Dr. Schiller says I consider only one case of meaning, "that in which an 'object' is said to 'mean so-and-so,'" and that I do not derive 'personal' meaning. The case I consider is not that in which an object means something else, but that in which *I* mean an object—as I have to do in order to think of it. How meaning can be more personal than this, I should like him to explain.

It may not be amiss to recall here that James discussed this question of the nature of meaning, in an article called 'A World of Pure Experience' (reprinted in *Essays in Radical Empiricism*), and developed a theory very similar to that which I defend. A couple of quotations will show this. "Suppose me to be sitting here in my library at Cambridge, at ten minutes' walk from 'Memorial Hall,' and to be thinking truly of the latter object. My mind may have before it only the name, or it may have a clear image, or it may have a very dim image of the hall. . . . If you ask me what I MEAN [small caps mine] by my image, and I can tell you nothing; or if I fail to point or lead you towards the Harvard Delta; or if, being led by you, I am uncertain whether the Hall I see be what I had in mind or not; you would rightly deny that I had 'meant' that particular hall at all. . . . On the other hand, if I can lead you to the hall . . . if in its presence I feel my idea, however imperfect it may have been, to have led hither and to be now *terminated* . . . why then my soul was prophetic, and my idea must be, and by common consent would be, called cognisant of reality. That percept was what I *meant*" (55-56). What is important in this passage is the non-existence of any special function of meaning—its non-existence *psychologically*, or as a datum of introspection, that is, for epistemologically I certainly do mean the object. When such a process of experiential conduction through intermediaries unrolls itself, says James, "*their starting-point thereby becomes a knower and their terminus an object meant or known*" (57).

I do not mean to assent unreservedly to this account of knowing or meaning, for (*a*) the intermediaries do not, as James himself observes, need to be actually passed through in order that the knowing relation may exist; (*b*) they do not even need to be capable of being passed through, in the form of experiences: as is shown by the fact that we can know or mean the past, or a

distant object as it is at this moment, or another mind. It is the actually existing physical relations between the object and our mind that enable us to mean it. Hence a visual sensation, whose sufficient resemblance to the object is guaranteed by the fact that it was called forth by stimuli from it, may mean or know that object provided it leads us to point toward it or to perform actions addressed to it; and perception requires to have no greater clairvoyancy or intuitive power than this. Meaning is not primarily and originally a relation of a mental image to a sensation; it is, in its earliest form, a relation of a sensation to the external object which it enables us to cognise.

(5) Dr. Schiller is impatient with me because I attempt, realistically, to account for meaning by means of relations to things outside the mind, and will not content myself, as he does, with merely describing the experience of meaning. If I understand him rightly, when he goes to Switzerland to climb, the mountains are a temporary hypothesis which is true because it works, but which ceases to be true when he returns to Oxford. Or, if he attributes to them a greater degree of reality than this (as I hope), then I have a right to consider his body and the relations between it and them in explaining how he can think of or 'mean' them.

Finally, may I say that it was not from any impulse of chivalry, as he suggests, that I rushed to the aid of beauty in distress in the person of Mr. Russell, but because all three of the learned disputants appeared to me to be, in one form or another, phenomenalists, and because, even after Dr. Schiller's two valuable papers, no reference (so far as I remember) to a possible bearing of my form of realism on the question had yet been made. I wished to maintain, against Mr. Russell, that there is no good ground for holding that mental images can signify to the mind things beyond themselves, but that sensations cannot do so; that, consequently, the distinction between sense-datum and sensation is a valid distinction. Dr. Schiller was well advised in raising the problem of the nature of meaning; it is admirably adapted to take us to the roots of things; but he must not be surprised if it turns out that physical objects are known by our 'meaning' them, and that how we can mean them is explained by certain relations between physical objects.

C. A. STRONG.

VI.—CRITICAL NOTICES.

A Treatise on Probability. By J. M. Keynes, Fellow of King's College, Cambridge. London: Macmillan & Co. Ltd., 1921. Pp. xi, 466.

Mr. Keynes's long awaited work on Probability is now published, and will at once take its place as the best treatise on the logical foundations of the subject. The present reviewer well remembers going over the proofs of the earlier parts of it in the long vacation of 1914 with Mr. Keynes and Mr. Russell. From these innocent pleasures Mr. Keynes was suddenly hauled away on a friendly sidecar to advise the authorities in London on the *moratorium* and the foreign exchanges. Mr. Russell (like the foreign exchanges) received a shock, from which he has never wholly recovered, in learning that the logic books had been deceiving him by their reiterated assertions that "man is a rational animal"; and the *Treatise on Probability* was held up till this year.

The present treatise is essentially philosophical rather than mathematical, although it contains a fair amount of mathematics. It is divided into five parts. The first defines probability and discusses how far it can be measured. The second gives the fundamental theorems of probability in strict logical form. This part owes a great deal to Mr. W. E. Johnson, to whose magnificent work on this subject Mr. Keynes acknowledges his great obligations. Indeed the Muse of Probability seems to have fixed her seat at King's College, Cambridge, of which both Mr. Keynes and Mr. Johnson are fellows. The third part deals with the logical principles of inductive and analogical generalisation; and the fifth with the connected, but more complex, problem of inductive correlation or statistical inference. In between these two is sandwiched Part IV., which is entitled "Some Philosophical Applications of Probability". This is concerned with a number of historically interesting problems, and in particular with the application of probability to ethics. At the end of the work Mr. Keynes provides an admirable bibliography of books and articles on probability and kindred subjects.

In this review I shall try to give an outline of Mr. Keynes's theory. I shall not have many serious criticisms to make, because I am substantially in agreement with him, and where I am not persuaded by his arguments the subject is so difficult that I have little of value to suggest as an alternative to his views.

The fundamental thesis of the book is that probability is a rela-

tion between propositions, which may be compared with implication. When p implies q the belief that p is true justifies an equally strong belief in q. But there are numberless cases where a belief in p justifies a certain degree of belief in q, but does not justify so strong a belief in q as we have in p. In such cases there is a certain logical relation between p and q, and this relation is of the utmost importance for logic. But it is not the relation of implication. It is this other relation with which probability is concerned. This probability relation is capable of degree, since it may justify a more or a less confident belief in q. The typical probability statement is of the form "p has to q a probability relation of degree x". Implication may perhaps be regarded as the strongest probability relation, or better as a limit of all possible probability relations.

There is however a very important difference, which is not merely one of degree, between the implicative and the probability relations. There is nothing corresponding to the Principle of Assertion in probability. If one proposition implies another and we know that the first is true we are justified by the Principle of Assertion in going on to believe the second by itself, and in dropping all reference to the first. We can never do this in probability. We can never get beyond statements of the form "p has such and such a probability with respect to the datum q". Propositions are true or false in themselves, though we may need to know their relations to other propositions in order to *know* whether they are true or false. But probability is of its very nature relative. When we talk of *the* probability of a proposition this phrase is always elliptical, as when we say that the distance of London is 120 miles. We simply assume that the person to whom we are speaking will supply from his own mind the same data as we are taking. Two important consequences flow from this. In the first place, a proposition may be highly probable with respect to certain data and yet be false. Its turning out to be false makes no difference whatever to the fact that it is highly probable with respect to these data. Secondly, one and the same proposition may have many different probabilities at the same time, so long as the data are different in each case. In particular a proposition may be highly probable with respect to a certain set of data and highly improbable with respect to another set of data which includes the first set as a part. Thus, if the only fact that you know about a man is that he has recently swallowed arsenic, it is highly probable with respect to these data that he will be dead in the next half hour. If you afterwards get the additional piece of information that he has taken an emetic, the probability that he will die in the next half hour, on the combined data, is much smaller. Neither probability is in any way more "correct" than the other. This essential relativity of probability is absolutely fundamental, and most previous expositions have suffered by failing to grasp it.

To express these facts Mr. Keynes takes over a useful symbol from Mr. Johnson. He writes $q/p = x$ for "the probability of q with respect to the datum p is of magnitude x". Two questions at once arise: (1) Can probability always be measured? and (2) Why do we commonly prefer a probability with respect to wider data to a probability with respect to narrower data? These questions are dealt with by Mr. Keynes in two chapters in the first part.

(1) Mr. Keynes argues that there is no reason to suppose that all probabilities fall into a single scale. All indeed lie between certain truth and certain falsehood, but there may be innumerable series leading from the one to the other. It is only probabilities that lie in the same course that can be directly compared. Two different courses may cut each other at one or more points, *i.e.*, there may be certain probabilities which are common to several different series. When this happens there is a possibility of indirectly comparing two probabilities in different series by comparing both with one that is common to the two series. But, even when we confine ourselves to the probabilities of a single series, there is no guarantee that we shall be able to set up a consistent system of numerical measures for them. Not every series of comparable magnitudes is measurable. The mathematicians have naturally exaggerated the amount of numerically measurable probability in the world; and, when they came across probabilities that were not comparable, or, if comparable, not numerically measurable, they passed by and "thanked God that they were rid of a rogue". Probabilities are only measurable in the comparatively rare cases where we have a field of possibilities which can be split up disjunctively into exhaustive, exclusive, and equiprobable alternatives. This does happen in games of chance and in the "bag" problems in which mathematicians exercise themselves, but not in many other cases.

It must be noticed that this view of Mr. Keynes's is much more radical than the view that all probabilities are theoretically measurable, but that in most cases the practical difficulties are insuperable. Mr. Keynes points out that there is one and only one theory of probability on which the latter view is plausible. This is the Frequency Theory, which he proceeds to discuss.

There is something bluff and Anglo-Saxon about the Frequency Theory, which no doubt accounts for its extreme popularity with the Island Race in general and with Prof. Whitehead in particular. Moreover there is a real but rather complex connexion between probability and frequency by way of Bernoulli's Theorem; and the very narrow limits within which that theorem and its converse can be applied have been overlooked by most people, as Mr. Keynes points out in the later parts of the present work. Thus there are many excuses for accepting the Frequency Theory. Mr. Keynes has little difficulty in showing that, in the simple-minded form in which it appears in Venn's *Logic of Chance*, it is

unsatisfactory, and that Venn tacitly assumes in many places a sense of probability other than that which is laid down in his definitions. Prof. Whitehead's form of the theory, as might be expected, is a good deal more subtle. Unfortunately it is not easy to make out exactly what it is. Mr. Keynes states it in the way in which he has understood it from private correspondence, but admits that he may be mistaken about Whitehead's meaning. It is therefore hardly profitable for a third person to discuss this form of the theory. But it is open to a reviewer to point out what seems to him to be a fallacy in Mr. Keynes's arguments against the theory. Keynes argues that Whitehead's form of the theory shares with Venn's the defect that it cannot satisfactorily explain the fundamental axiom connecting the probability of a disjunctive proposition with the probabilities of its separate parts, *i.e.*, the proposition

$$(p \mathbf{v} q)/h = p/h + q/h - pq/h.$$

On the Frequency Theory, as interpreted by Mr. Keynes, the datum h determines a certain class α of propositions of which p is a member, a certain class β of which q is a member, and certain classes γ and δ of which the propositions pq and $p \mathbf{v} q$ are respectively members. The probability of p with respect to h is then defined as the ratio of the number of true propositions in the class α to the total number of propositions in this class. Similar definitions apply, *mutatis mutandis*, to the probabilities of q, pq, and $p \mathbf{v} q$, respectively. He then points out, quite truly, that the question whether the fundamental addition-theorem mentioned above will hold at all depends entirely on what particular classes, α, β, γ and δ, the datum h does determine for the four propositions in question. So far I quite agree, and think that this is a very serious difficulty in the way of the theory in question. But Mr. Keynes then proceeds to tell us what must be the values of the classes, α, β, γ, and δ, if the equation is to hold. He says that δ must be the class of propositions of the form $p \mathbf{v} q$, where p is a member of α and q of β; and that γ must be the class $\alpha\beta$ of propositions. It is very easy to make up simple concrete examples to disprove this; *i.e.*, to make up examples in which the fundamental theorem does not hold even when the classes of reference are determined in this particular way. But it is better to disprove it quite generally. It can be shown that the number of propositions in Mr. Keynes's class δ is $(\alpha)\,(\beta) - (\alpha\beta)/2 - (\alpha\beta)^2/2$. It can also be shown that the number of *true* propositions in this class is :—

$$(\alpha_\tau)(\beta) + (\beta_\tau)(\alpha) - (\alpha_\tau)(\beta_\tau) - (\alpha\beta)_\tau\ (\alpha\beta) + (\alpha\beta)^2_\tau/2 - (\alpha\beta)_\tau/2$$

where (α) = the number of propositions in the class α; (α_τ) means the number of true propositions in the class α; and similar meanings attach to the other symbols. If the fundamental equation

is to hold, the ratio of the second expression to the first must be equal to—

$$\frac{(\alpha_r)}{(\alpha)} + \frac{(\beta_r)}{(\beta)} - \frac{(\alpha\beta)_r}{(\alpha\beta)}.$$

It is quite obvious that this will not in general be true; and therefore that either Mr. Keynes or I have made some blunder in the algebra of classes. I am pretty certain that Mr. Keynes is wrong, but of course I may be wrong too. However this may be, the real force of Mr. Keynes's general criticism is not diminished, even if he has made an algebraical slip here.

If the measurement and comparison of probabilities be possible only in a few specially favourable cases it is peculiarly important to be sure what those cases are. This leads to the question: When may we judge two probabilities to be equal? And this leads us at once to one of the *cruces* of the Theory of Probability, *viz.*, the famous *Principle of Non-Sufficient Reason*, or, as Mr. Keynes prefers to call it, the *Principle of Indifference*. In the negative and critical part of this chapter Mr. Keynes found most of the work already done for him by Von Kries, one of the few writers on the philosophical side of probability who are really worth reading. Von Kries had already pointed out the absurd results which a light-hearted use of the Principle of Indifference had led to. He did indeed attempt to base on these a positive statement of the proper limits of the Principle; but I am relieved to notice that Mr. Keynes finds the precise upshot of Von Kries's positive theory as hard to grasp as I have always done myself.

By studying the cases where the uncritical use of the Principle of Indifference ends in absurdities Mr. Keynes elicits the following conditions which must be fulfilled if it is to be applicable. (1) The various alternatives under consideration must be capable of being put into the same form, *i.e.*, they must simply be different instances of a single propositional function ϕ. This cuts out the wild applications of the Principle to pairs of contradictory alternatives in which Jevons habitually indulged. The two alternatives "x is red" and "x is not red" are not of the same form. The first means that x has the colour red. The second certainly does not mean that x has the colour "non-red," for non-red is not a colour. (2) The alternatives must not be sub-divisible into other alternatives of the same form as themselves. Given that x is an inhabitant of Europe it follows that he lives either in Great Britain or in France or in Germany or. . . . These alternatives are of the same form, and so far all is well. But each of them is divisible into sub-alternatives of the same form as itself. The alternative that x lives in Great Britian is divisible into such alternatives as that he lives in England, that he lives in Scotland, etc. . . . It is by ignoring this condition that mathematicians who treat of geometrical probability so often reach different solutions of the same problem.

Subject to these two conditions Mr. Keynes states the Principle

as follows. The alternatives $\phi(a)$ and $\phi(b)$ are equally probable with respect to the data h, provided that h can be written in the form $f(a)\ f(b)\ h'$, where $f(a)$ and $f(b)$ are logically independent, h' is absolutely irrelevant to both alternatives, and $f(a)$ and $f(b)$ are the only parts of h that are relevant to $\phi(a)$ and $\phi(b)$ respectively. (There is a puzzling mistake in Mr. Keynes's symbolism on p. 60, § 21. He says: "It might be the case that . . . $\phi(x) = x$ is the only propositional function common to all of them" (*i.e.*, the alternatives). He cannot possibly mean this, for it is sheer nonsense that $\phi(x)$ which is a proposition about x should ever be identical with x itself. What he really means is simply that $\phi(x)$ might be nothing but $x = a \,.\, \mathbf{v} \,.\, x = b \,.\, \mathbf{v} \,.\, x = c \,.\, \mathbf{v}. \ldots$ where $a, b, c, \ldots$ are just proper names or other designations of the alternatives. Such a ϕ will not do. His real point therefore is that the alternatives must be members of a class which is defined intensively, and not by a mere enumeration of its members.)

It will be seen then that all judgments of indifference involve judgments of irrelevance. We have to know what part of h is irrelevant to both $\phi(a)$ and $\phi(b)$ before we can see whether h does fall into the form required for the Principle of Indifference. These judgments of irrelevance are of fundamental importance in Probability, and no rules can be given for making them. In the end we have to come down to direct insight, just as we have to do in the end in judging the validity of any deductive argument.

Mr. Keynes makes one very important observation here on the dangers of symbolism. So long as we are dealing with mere a's and b's all that we know about them is that they are both instances of some ϕ. But the moment you substitute something definite, like Socrates, for a, and something else definite, like Plato, for b, you can no longer assume that the conditions for the Principle of Indifference still hold. The moment you know, not merely that you are dealing with a ϕ, but also know *which* particular one of the ϕ's you are dealing with, you may have fresh relevant information.

Having treated the conditions under which two or more probabilities may be judged to be equal Mr. Keynes turns to the question: "Under what conditions can one probability be judged to be greater or less than another?" Such comparisons can only be made directly when either (*a*) we have the same data, and one of the propositions whose probability is sought is a conjunctive containing the other proposition as a part; or (*b*) when the proposition whose probability is sought is the same in both cases, but the datum in one is a conjunctive which includes the data of the other as a part. Into the exact refinements that are needed here I will not enter. Mr. Keynes shows that, by combining cases (*a*) and (*b*), we can sometimes indirectly compare probabilities which do not fall under either rubric.

(2) The prolegomena to the measurement of probability are now completed, and we can turn to another most important question

which has already been mentioned. If there is nothing to choose in point of correctness between the probabilities of a proposition with respect to a wider and to a narrower set of data why do we prefer the former probability to the latter? Why do we attach more weight to the low probability of the patient who is known to have taken both arsenic and an emetic dying in the next half hour than to the much higher and equally correct probability of the same event relative to the narrower data that he has taken arsenic? This extremely puzzling question is attacked by Mr. Keynes in a chapter on the *Weight of Arguments*. I do not know of any other writer who has raised it except myself in the chapter on Causation in *Perception, Physics, and Reality;* though I do not doubt that Mr. Johnson has an elaborate treatment of it up his sleeve. Roughly speaking, any increase in the amount of relevant evidence increases the weight of an argument, though it may leave the probability unchanged or may decrease it. We have already seen an example of the latter; let us now consider the former. Suppose we start with a probability a/h. A new piece of evidence k may arise, and k may consist of two parts k_1 and k_2, one of which is favourably and the other unfavourably relevant to a/h. In that case it is possible that $a/hk = a/h$. Nevertheless the weight of a/hk is greater than that of a/h. Mr. Keynes discusses various cases in which weights can be compared; and he considers the relation between weight and what is called "probable error" in statistics. In general a big probable error is a sign of scanty observations, and therefore of a low weight for one's result. But this correlation is not absolutely invariable. I wish that Mr. Keynes had discussed why we feel it rational to prefer an argument of greater weight to one of less weight. I think that our preference must be bound up in some way with the notion that to every event there is a finite set of conditions relative to which the event is certain to happen or certain not to happen. So long as the evidence is scanty a high probability with respect to it does not make it reasonable to act as if we knew that the event would happen, because it is reasonable to suppose that we have only got hold of a very small selection of the total conditions and that the missing ones may be such as to be strongly relevant in an unfavourable direction. If the probability remains high relative to a nearly exhaustive set of data we feel that there is less danger that the missing data may act in the opposite direction. In fact, what we assume is that a high probability with respect to a wide set of data is a sign of certainty with respect to the *complete* set of relevant data.

This exhausts the main features of Part I. Part II. is largely the formal development of the fundamental axioms of probability. Much of it could be accepted by a person who rejected Mr Keynes's view as to what probability really is. The most exciting theorems in this part are due to Mr. Johnson, whose valuable conception of "Coefficients of Dependence" is introduced and explained. It is worth while to mention a very plausible fallacy in probable reason-

ing which is detected and dealt with mathematically by Mr. Johnson's methods. It seems plausible to hold that if k is favourably relevant to m/h and m is favourably relevant to x/h then k must be favourably relevant to x/h. It is shown here that this is not in general true; and the two conditions under which alone it is true are elicited. It is fairly easy to illustrate part at least of this fallacy by an example. The fact that a man is a doctor increases the probability that he will have visited smallpox patients, and the fact that a person has visited smallpox patients increases the probability that he will get smallpox. It by no means follows that the fact that a man is a doctor increases the probability that he will get smallpox. For this fact also increases the probability that he is properly vaccinated and that he will take reasonable precautions. And this of course decreases the probability that he will get smallpox. Thus we see that it is not enough that k shall be favourably relevant to something that is favourably relevant to x. It is also necessary that k shall not be favourably relevant to anything that is unfavourably relevant to x. The second condition is more subtle, and I cannot at the moment think of any simple example that would illustrate it. As an example of the power of the Keynes-Johnson methods the reader is advised to look at Chapter XVII., in which Mr. Keynes solves in a few lines problems over which Boole spent pages of algebra, arriving as often as not at results which are certainly wrong.

To the mathematician I should imagine that the most interesting thing in this part would be Mr. Keynes's beautiful treatment of Laws of Error, and his general solution of the problem: What form must the law of error take in order that the most probable value of a measured variable shall be represented by the arithmetic, the geometric, the harmonic, and other means, of the observed values? I know of no treatment of this subject which approaches Mr. Keynes's for clearness and generality. To most readers of MIND, however, the chapters of greatest interest will be the earlier ones on the notions of *Groups* and *Requirement*.

Both these notions were first devised by Mr. Johnson to deal with such problems in deductive reasoning as are raised by Mill's attack on the Syllogism and by the apparent paradox about a false proposition implying all propositions and a true proposition being implied by all propositions. Mr. Keynes first explains the applications of the theory, and then proceeds to give his own extension of it to the case of probable reasoning.

A group, so far as I can understand, consists of a set of propositions which must contain some formal principles of inference, and includes in addition all propositions that follow from the fundamental set by the principles which are contained in that set. A group is said to be real if the set of propositions which determine it are all known to be true, otherwise it is said to be hypothetical. It is of course possible for the same group to be determined by

several alternative sets of propositions, though a given set necessarily determines a single group. Mr. Keynes and Mr. Johnson are both persuaded of the extreme importance of the theory of groups in the logic of inference. I agree with them to this extent, that the *facts* that the theory of groups takes into account are of vital importance. But it does seem to me that they can all be stated much more simply in other terms; and I have failed to find anything specially important that follows from the group notation and would not have been discovered without it. Possibly I am only exhibiting my ignorance. The essential point that the group theory is meant to bring out is the distinction between what Johnson calls the Logical and the Epistemic factors in inference. The latter is the question of the order in which we get our knowledge. *E.g.*, p implies q provided that either p is false or q is true. So far it is irrelevant how we came to know that this disjunction holds. But when we say "if p then q" we mean something more than this. We mean that it is possible to know that p is false or q is true without having to know that p is false or having to know that q is true. And the only way in which we can know such a thing is by seeing that the disjunction is an instance of some formally true hypothetical such as "if $S\alpha P$ then $\bar{P}\alpha\bar{S}$". Again, if we want to infer q from p it is obviously necessary to be able to know that p is false or q true before you know whether q is true or not. All this can be and is expressed by Mr. Keynes in terms of the theory of groups; and my only doubt is whether it becomes any clearer or leads to anything further when so expressed.

A proposition has a probability with respect to a set of data h when neither it nor its contradictory falls into the group determined by h. Does this really enlighten us any more than to know (what is equivalent to it) that neither the proposition nor its contradictory must follow logically from the *premises* mentioned in h by the known *formal principles* of deductive logic? On page 131 Mr. Keynes has a formidable definition in terms of groups of the statement that "the probability of p does not require q within the group determined by h". When this definition is unpacked it seems to me to amount to no more than this: You can make a selection h' out of h such that no part of h outside h' will alter the probability p/h' when added to h'; and some part of h outside h' when added to h' will alter the probability of q/h'. If this be the right interpretation, it is far easier to grasp than Mr. Keynes's definition in terms of groups.

Not only am I doubtful of the fruitfulness of the group theory, I am also not satisfied that Mr. Keynes's treatment of hypothetical groups is adequate. All groups must, so far as I can see, include in their fundamental set formal principles of inference as well as premises. I quite understand that the premises may be hypothetical. But can we really allow the generating principles to be hypothetical also? Mr. Keynes does not discuss this point, which

seems to me to be a very important one for a person who is going to admit hypothetical groups.

Let us next turn to Mr. Keynes's theory of inductive generalisation, which is contained in Part III. It is peculiarly gratifying to me to find how nearly Mr. Keynes's view of the nature and limits of induction agrees with that put forward quite independently by me in two articles in MIND. We both agree that induction cannot hope to arrive at anything more than probable conclusions, and that therefore the logical principles of induction must be the laws of probability. We both agree that, if induction as applied to nature is to lead to results of reasonably high probability, nature must fulfil certain conditions which there is no logical necessity why it should fulfil. Finally, we agree as to the nature of those conditions, in general outline at any rate. In some way the amount of ultimate variety in nature must be limited, if induction is to be practically valuable; the infinite variety of nature, as we perceive it, must rest on combinations of a comparatively few ultimate differences. But of course Mr. Keynes's theory is far more detailed and subtle than anything of which I am capable; and it is, so far as I know, the only account of the logic of this process which a self-respecting logician can read with any satisfaction.

The problem of induction boils down to this: We examine n things. They have the r properties $p_1 \ldots p_r$ in common; this is called their total positive analogy. There is also a set of properties $q_1 \ldots q_s$ such that each is present in some of the things and none is present in all of them; this is called the total negative analogy. Both the positive and the negative analogies in any actual case are pretty certain to be greater than the *known* positive and negative analogies, which form the only basis of our argument. Our object is to prove some proposition of the form that everything which has the properties $p_1 \ldots p_m$ has the properties $p_{r-t} \ldots p_r$. It is obvious that this can only be possible if some part of the known analogy is irrelevant. *E.g.*, all the examined instances agree in the fact that we have examined them, that they are confined to certain limits of space and time, and differ from all unexamined instances in these respects. Whenever this part of the known analogy is relevant to the attempted generalisation, it is clear that the attempt is doomed to fail. Thus an essential factor in all inductive generalisations is judgments of irrelevance. Many of them no doubt depend on past experience, but Mr. Keynes holds that there must be a residuum which is *a priori*. The only importance of the Uniformity of Nature is that it is a general principle of irrelevance, which asserts that *mere* differences of date and position are irrelevant. Mr. Keynes raises the question in a note whether this is affected by the Theory of Relativity; but he does not answer his own question. However this may be, it seems to me that the Uniformity of Nature, thus defined, is a mere pious platitude; since—whether space and time be absolute or relative—no two objects or events ever do differ merely in date or place.

Such differences always involve their being in intimate spatio-temporal relations with different sets of objects or events, and these differences cannot be assumed to be irrelevant.

Our generalisation always refers to much less than the known positive analogy. When we argue that all swans are white our generalisation only concerns whiteness and those few properties by which we define a swan. But all the examined swans were known to have many other common properties beside these, and we do not know that these are all irrelevant. All that we positively know to be irrelevant at this stage is the properties in the known negative analogy. We can reduce the dangers thus involved by seeking other instances which increase the known negative analogy. For this purpose mere *number* is unimportant. One instance which is known to differ from the previously examined ones in many of those properties which the generalisation assumes to be irrelevant is of more importance than dozens of instances which are exactly like those already examined. But there remains a danger due to the fact that the total analogy is almost certain to be greater than the known positive analogy. The extra and unknown analogies may be relevant; and, since we do not know what they are, we do not know where to look for negative analogies which will prove them to be irrelevant. In this case the only course is to increase the *number* of instances, trusting that, even though they do not differ in any known respects from those that have already been examined, they will probably between them differ in many of the unknown points of positive analogy from the examined instances. All this however only tells us how to diminish the objections to an inductive generalisation. It does not tell us that any inductive generalisation will possess a reasonable degree of probability, even when we have carried out these processes to the utmost. Something more is clearly needed if inductive generalisation is to be trustworthy.

The extra factor is dealt with in the chapter on Pure Induction. It is easy to prove that an hypothesis becomes more and more probable the more mutually independent consequences of it are verified. It is also easy to prove that, if it starts with a finite probability, sufficient verification of mutually independent consequences will make its probability approach as near as we please to unity. The problem that remains is: What justifies us in ascribing a finite antecedent probability to any inductive generalisation? To this Mr. Keynes answers that we are only justified if we assume that all the variety of perceptible properties springs from a comparatively small number of generating properties.

To each generating property there corresponds a large group of perceptible qualities, but we must admit the possibility that the class of perceptible qualities corresponding to ϕ_1 and the class corresponding to ϕ_2 may partially overlap. If so the group common to the two will not tie us down to a single generator. Setting this possibility aside for the moment, we see that if a

group α of perceptible qualities is found to be accompanied by a group β there is a finite probability that the complete group $\alpha\beta$ corresponds to a single generator, or that the generators of α include among them the generators of β. If this is so α will not be able to occur without β, and there is thus a finite antecedent probability of the generalisation, on which induction can build. If we allow that a group of perceptible qualities may have a plurality of possible generators this argument breaks down; but if we assume that the plurality of possible generators for every set is finite we can still assign a finite antecedent probability to inductive *correlations*, which assert that the next S, or at least a certain proportion of the S's, will be P.

Mr. Keynes seems to me to be right here; and it is true that this is the kind of assumption that does lie at the back of all our scientific reasoning. I have only two remarks to make. (1) Does the theory of generators add anything to the facts? Would it not be enough to assume that perceptible qualities do tend to occur in bundles? This is the whole cash-value of the assumption, and the doctrine of generators seems to be nothing more than a hypothetical explanation of our assumption. (2) Mr. Keynes holds that there is no circle in saying *both* that no inductive generalisation can acquire a finite probability without this assumption, *and* that the results of induction may make this assumption progressively more and more probable.

It is therefore not necessary that the fundamental inductive assumption should be certain. It is enough if it ever had a finite probability; for all subsequent experience has tended to support it. What Mr. Keynes means is, I think, this: If the world is a system with a finite number of generating properties we might expect to find a good deal of regularity and repetition in it. Now, up to the present, we have found more and more regularity and repetition the more carefully we have looked for them. Thus the actual course of experience has been such as to increase the probability of the inductive hypothesis, provided that it started with any finite probability. This works out in practice to the result that a large part of the confidence that we now feel in any inductive generalisation is due, not to the special evidence for it, but to the enormous and steadily increasing amount of regularity that we have found in other regions. There is, I think, no circle in this. Thus the one fundamental assumption of induction is that we can know somehow that the inductive hypothesis that nature is fundamentally finite has a finite antecedent probability. Mr. Keynes admits that it is very difficult to see how we can know this. It is certainly not an *a priori* principle, self evident for all possible worlds, that every system must depend on a finite number of generators. We can only suppose that in some way we can see directly that this has a finite probability for the actual world. But the epistemology of this is at present wrapped in mystery.

In Part IV. many interesting problems are discussed; but I

must only glance at them. Mr. Keynes ranges from Psychical Research to *Principia Ethica*, and from the *Argument from Design* to the Petersburg Problem; and he has something illuminating to say about all of them. From the point of view of pure probability the most important thing in this part is the definitions of an objectively chance event and of a random selection. The former is very important in connexion with statistical mechanics, the latter in connexion with most statistical reasoning. A chance event is not one which is supposed to be undetermined. Nor is it always one whose antecedent probability is very small. To throw a head with a penny is a chance event, but its probability is $\frac{1}{2}$. An event may be said to be a matter of chance when no increase in our knowledge of the laws of nature, and no practicable increase in our knowledge of the facts that are connected with it, will appreciably alter its probability as compared with that of its alternatives.

Part V. deals with the principles of statistical inference. It is too technical for me to give any complete account of it, so I will confine myself to a very short summary of the most important points in it. (1) Mr. Keynes considers the conditions under which Bernoulli's theorem holds, and shows that they are so restricted that we can seldom in practice count on their being fulfilled. (2) He severely criticises Laplace, and particularly his famous Rule of Succession. This occurs in connexion with the attempted inversion of Bernoulli's theorem. I agree with Mr. Keynes about this rule, but it seems to me that he is a little unfair to it in one respect. He assumes that it always deals with cases where what is drawn is replaced before the next drawing. On that supposition it is true, as he points out, that the formula only holds as the number of drawings tends to infinity. But the same formulæ hold without this restriction when the objects drawn are not replaced. And surely, if the Rule claims to have the slightest application to our investigations of nature, the latter is the right alternative. For we cannot observe the same event twice over, any more than we can draw a counter twice out of a bag if we do not replace it. (3) On all these subjects Mr. Keynes prefers Bortkiewicz, Tschuproff, Tchebycheff, and Lexis to the classical French school. I am afraid that, with the exception of Lexis, these names are mere sternutations to most English readers; but I suppose we may look forward to a time when no logician will sleep soundly without a Bortkiewicz by his bedside. (I must remark in passing that the beginning of Mr. Keynes's sketch of Tchebycheff's theorem seems to the uninitiated to commit precisely the same kind of fallacy which Mr. Keynes himself points out in Maxwell's deduction of the law for the distribution of molecular velocities in a gas. This is on page 353, where it is said that "the probability that the sum $x + y + z \ldots$ will have for its value $x_\kappa + y_\lambda + z^\mu \ldots$ is $p_\kappa q_\lambda r_\mu \ldots$". Surely this forgets that a sum of this

value could be made up in a great number of different ways by taking suitably chosen values of the variables. Why should not $x_\alpha + y_\beta + z_\gamma \ldots$ have the same value as $x_\kappa + y_\lambda + z_\mu \ldots$? In that case the probability will be much greater than $p_\kappa q_\lambda r_\mu \ldots$.) (4) About past statisticians Mr. Keynes makes a remark which exactly hits the nail. They never have clearly distinguished between the problem of *stating* the correlations which occur in the observed data, and the problem of *inferring* from these the correlations of unobserved instances. There is nothing inductive about the former; but, as it involves considerable difficulties, the statistician has been liable to suppose that, when he has solved these, all is over except the shouting. Thus the inductive theory of statistical inference practically does not exist, save for beginnings in the works of Lexis and Bortkiewicz. These beginnings Mr. Keynes describes and tries to extend.

There are several misprints in the book beside those that are mentioned in the list of errata. On page 170 the various kinds of '*h*'s have got mixed up in the course of the argument. On page 183 it is said that "we require a/ah_2h_2," when we really want a/ah_1h_2. On page 207 substitute $\phi(z)$ for $\phi(x)$ on the left-hand side of the equation. In the formula at the bottom of page 386 read f' for f in the second factor of both numerator and denominator. On page 395 in the first line after the equation read p_1 for the second p in the line.

I can only conclude by congratulating Mr. Keynes on finding time, amidst so many public duties, to complete this book, and the philosophical public on getting the best work on Probability that they are likely to see in this generation.

C. D. BROAD.

The Analysis of Mind. By BERTRAND RUSSELL, F.R.S. London: George Allen & Unwin, Ltd., 1921. Pp. 310.

"TRAVELLING, whether in the mental or the physical world, is a joy, and it is good to know that, in the mental world at least, there are vast countries still very imperfectly explored."

Many will feel that in those words, which occur early in his latest book, Mr. Russell has aptly summed up his own attitude to philosophy. For there has seldom been a bolder traveller in those realms than Mr. Russell, and seldom one who had more power to charm his readers by the accounts of his discoveries, or to communicate to them something of the zest he himself finds in such adventures. Almost every successive work which has come from his pen represents a new voyage of discovery, and most of his readers must at times have found it difficult to keep track of his rapid progress. But never before, I think, has he made so venturesome a journey as the present one, or covered in his survey so large a stretch of country.

We have already, of course, had preliminary reports of this

latest adventure. The theory which Mr. Russell now expounds more fully was adumbrated in his paper of two years ago printed in the Aristotelian Society's Supplementary Volume II., and in that form it has already been both attacked and defended in the pages of MIND. But the present work is wider in its scope; it is an outline, at least, of a system of metaphysics; and the theory of knowledge which formed the subject of the *Aristotelian* paper appears here as only a part of the larger scheme. Mr. Russell has not (so far as I can see) withdrawn any of his former contentions, but they appear in rather a different light when they fall into their proper place in the whole. It seems convenient, therefore, to treat the previous papers as being entirely swallowed up in this new work, and to take this book as being the first complete presentment of the new theory.

Its scope and its conclusion are briefly indicated in the preface. Psychology, under the influence of behaviourism, has steadily been growing more materialistic; but at the same time physics has developed in the direction of making matter less and less material. The two tendencies seem at first sight inconsistent, but Mr. Russell believes that they are not really so. "The view that seems to me to reconcile the materialistic tendency of psychology with the anti-materialistic tendency of physics is the view of William James and the American new realists, according to which the 'stuff' of the world is neither mental nor material, but a 'neutral stuff' out of which both are constructed. I have endeavoured in this work to develop this view in some detail as regards the phenomena with which psychology is concerned."

This statement, however, scarcely brings out fully the nature of the task which Mr. Russell has attempted. His book may be looked at from several different points of view. The reader is likely to be struck in the first place by the extent of Mr. Russell's debt both to the behaviourists and to the American new realists. The first few lectures are chiefly occupied with an exposition of their views, and it might seem almost as if Mr. Russell had abandoned some of his most characteristic positions and were confining himself to lending to these new theories the aid of his unequalled gift for the lucid exposition of complicated questions of philosophy. But as the work proceeds, this first impression is seen to be quite inadequate. Mr. Russell finds it convenient to start from the same point as the behaviourists, but it is not long before his path diverges from theirs; and what he does borrow from them he uses simply as material for a very individual and singularly bold piece of construction.

In carrying out this new theory, he has indeed, as he tells us early in the book, abandoned a number of doctrines which he previously held. But it would be a misapprehension to see in this a complete volte-face; what has happened, rather, is that Mr. Russell has developed one line of thought which has already appeared in his writings. The present work becomes most intelligible

if it is regarded as the application to a new material of the method followed in *Our Knowledge of the External World.* The object of that work was to show that the "matter" dealt with by physics can be exhibited as a construction out of sense-data, *i.e.*, that all the laws of physics can be stated as laws of connexion between sense-data. The present lectures attempt to analyse "mind" in the same way; and the conclusion is that there is no specific character "consciousness" which is of the essence of mind. We say that "consciousness" exists when there occurs a certain complex of sensations and images related in a certain way; the whole phenomenon is analysable into these sensations and images, but by themselves they have nothing "conscious" about them. Thus we end by analysing the subject, and all mental states and mental processes into sensations and images variously inter-related.

As I have already said, the book begins with an outline of the behaviourist attitude to psychological problems. It then proceeds to discuss various particular points, showing how far the behaviourist treatment will carry us and where it turns out to be inadequate. Desire and feeling are dealt with, and the conclusion is reached that they can be satisfactorily defined in behaviourist terms; they become, that is to say, names for certain causal laws of our actions. (This is not entirely true of conscious desire, but the additional elements there present are held not to make any fundamental difference.) Two chapters are then devoted to the exposition of two conceptions which Mr. Russell regards as of first-rate importance for the definition of psychology—*mnemic causation* and a *perspective.*

The exposition of the latter notion, and of the related notion of a *biography*, is substantially the same as that given in *Our Knowledge of the External World* and in *Mysticism and Logic.* But as Mr. Russell is here more concerned with psychology than with physics, biographies are given a somewhat fuller treatment, particularly in the chapter on "The Definition of Perception". It is pointed out that we can define a biography without leaving the standpoint of physics—the biography to which a sensation belongs is the set of particulars that are earlier or later than, or simultaneous with, the given sensation (assuming in accordance with the theory of relativity that there are only local times). But we find that there are certain biographies which have their parts connected together not only by time-relations, but also by relations of mnemic causation; these are the biographies of living beings.

And at this point we come on a new fact, of great importance for psychology. It is not the case that *all* the particulars of which we are aware can be collected together both to form physical objects and to form perspectives. There are certain appearances, commonly called images, which cannot be fitted into the physical world and so belong only to perspectives; in other words, images have a passive place but not an active place. The existence of such particulars is of course revealed only by introspection; and it is denied

by the behaviourists. But, argues Mr. Russell, once we accept his conclusion as to the nature of physical objects, we see that "the physical world itself, as known, is infected through and through with subjectivity," and so introspection need not be specially distrusted just because it is subjective. Psychology is much more of an independent science than the behaviourists would allow. Images, however, turn out to be the only peculiar fact which introspection reveals; Mr. Russell accepts many of the other behaviourist criticisms of the introspective process, and agrees that it gives no ground for asserting the existence of a subject, of mental acts, mental states or any of the other specifically "conscious" entities which it has often been supposed to disclose.

So far then we have empirical evidence for the existence of two kinds of things only—sensations and images. A later chapter goes on to discuss their respective natures. The conclusion as regards sensation is that of the American realists; "a patch of colour and our sensation in seeing it are identical". Sensations in fact "are what is common to the mental and physical worlds". Images are clearly different in some way from sensations; but in the end it turns out that they differ not in their intrinsic natures, but only in the causal laws which they obey. Images may have mnemic causes and always have mnemic effects; sensations have only physical causes though they may have mnemic effects.

It remains for Mr. Russell to show that the analysis of mind which he has suggested is confirmed by an examination of the remaining kinds of mental processes. He has already argued that desire, pleasure, pain and perception can be completely explained as complexes of sensations and images; knowledge, thinking, truth and falsehood have still to be analysed into the same elements. This task is, as Mr. Russell recognises, the most difficult part of the enterprise; and it occupies nearly the whole of the second half of the volume.

This analysis is worked out on the lines of Mr. Russell's *Aristotelian* paper; it involves considerable complications and is scarcely capable of being summarised. The conclusion is that a belief consists entirely of a complex of sensations and images variously related, together with a specific belief-feeling; when this complex corresponds in a certain way to the facts, then the belief is true, and we have knowledge. There is no such thing as an immediate cognitive relation: "I believe knowing to be a very external and complicated relation, incapable of exact definition, dependent upon causal laws, and involving no more unity than there is between a signpost and the town to which it points".

The concluding chapter collects and emphasises the general conclusions reached; attempts to define mind, which however is found to be "a matter of degree, chiefly exemplified in number and complexity of habits," and so not capable of exact definition; and ends with a sketch of "the nature of that fundamental science which I

believe to be the true metaphysic, in which mind and matter alike are seen to be constructed out of a neutral stuff, whose causal laws have no such duality as that of psychology, but form the basis upon which both physics and psychology are built". The chapter does not profess to work out this notion in detail, but only to suggest general lines on which it might be worked out. The above fundamental science, Mr. Russell thinks, would be somewhat nearer to psychology than to physics; at least physics would appear as essentially derivative.

This summary, necessarily very inadequate, will still I hope be sufficient to make it clear that the new theory is an ambitious one, and that in boldness of construction it is not surpassed by anything that Mr. Russell has previously done. It may well be doubted whether anyone but Mr. Russell would have had the courage to attempt even the outline of so far-reaching a theory within the limits to which he has here confined himself. And even those who withhold assent from the conclusions will be unable to withhold admiration from the exposition.

But certainly there is matter and to spare for controversy in this volume. The criticisms that might be suggested are, I think, of two kinds—those directed against particular points in Mr. Russell's psychological analysis, and those attacking the tenability of his theory as a general account of the nature of knowledge and of reality. I shall mention a few difficulties that occur to me under each of these heads.

Mr. Russell's treatment of desire is an excellent example of his method. Starting from the behaviourist point of view he concludes that the conscious element in desire is of secondary importance; "the primitive non-cognitive element . . . seems to be a push, not a pull, an impulsion away from the actual, rather than an attraction towards the ideal. Certain sensations and other mental occurrences have a property which we call discomfort; these cause such bodily movements as are likely to lead to their cessation." As for discomfort and its opposite, pleasure, "we may regard them as separate existing items in those who experience them, or we may regard them as intrinsic qualities of sensations and other mental occurrences, or we may regard them as mere names for the causal characteristics of the occurrences which are uncomfortable or pleasant". Holding that there is nothing conclusive to be said in favour of the first view, Mr. Russell proceeds to argue that, since either the second or the third is equally capable of accounting for the facts, "it is safer to avoid the assumption that there are such intrinsic qualities of mental occurrences as are in question, and to assume only the causal differences which are undeniable". Discomfort, then, like desire becomes merely a name for a causal law of our actions; and Mr. Russell has analysed away two things which might have been held to have something specifically "mental" about them.

What Mr. Russell here describes as "avoiding an assumption"

seems to me to pass later on into something much more positive, but I leave that point aside for the moment. My difficulty is that the suggested definition of discomfort does not seem to correspond, even in extension, with the ordinary use of the word. There are, it seems to me, cases of what would be described (and properly described) as discomfort where it is *not* true that "the occurrence in question stimulates voluntary or reflex movements tending to produce some more or less definite change involving the cessation of the occurrence"—as when a person has lost hope of improving his condition. A man suffering from a mortal illness might be in such a state, and might resign himself to continued discomfort (and I am not here challenging the distinction between discomfort and pain). There are equally I think cases where a behaviour-cycle, involving consciousness of the end, is in progress, but where discomfort, in anything like the ordinary sense of the word, is absent—as when a man is eagerly engaged in playing some game. The question then of what discomfort really is cannot be shelved by proposing to define it as Mr. Russell does. Introspection, it seems to me, shows it to be a positive mental fact of some kind; and this, if it is true, is surely of more importance than the question whether we can "get on" without it or not. We can get along somehow without images, if it comes to that; but Mr. Russell admits their existence, for no more complicated reason than that he can see quite clearly that there are such things.

No doubt, however, the point is not a vital one for Mr. Russell's theory. He would probably be ready to grant that pleasure and discomfort may be specific "feelings," just as he asserts later on that belief is a specific feeling.

The question of the nature of desire remains to be decided. The primitive element in desire, Mr. Russell says, is the push of discomfort; and he makes this statement before he has proposed his own definition of discomfort, so presumably he supposes the statement to be true when that word is taken in its everyday meaning. I cannot feel that the arguments he brings forward here are really convincing; he does not seem to me to have given enough consideration to those types of desire which are most difficult to reconcile with his view. For instance, Sidgwick, in the passage in the *Methods of Ethics* where he touches on this question, gives a careful analysis of some instances of desire, and reaches the conclusion that in those instances there is no painfulness present; there is, he admits, unrestfulness—but unrestfulness is not the same as uneasiness. I do not suggest, of course, that Sidgwick foresaw the coming of behaviourism and refuted it by anticipation; but in the passage in question he seems quite alive to the force of some of the points which have struck Mr. Russell, and there have been few writers who could weigh a question of this kind more judicially than Sidgwick. Mr. Russell might say, of course, that if we allow for the effect of beliefs in causing secondary desires, we shall be able, by introducing some complica-

tions, to bring all doubtful cases under his formula. It may be so; but I confess I should like to see it done.

The whole point is of course a minor one; and no doubt alternative analyses of desire might be suggested equally compatible with the general metaphysical conclusion of the book. But that conclusion is in danger so long as a single type of mental state resists analysis into sensations and images, even if all the others have been successfully dealt with.

I must pass on, however, to what Mr. Russell says about theory of knowledge, for it is here, as he himself recognises, that the real testing-point for his view comes. That this should be so is only natural when we consider that Mr. Russell's view is in one respect the latest statement of a doctrine which has already a long history behind it, *viz.*, sensationalism. Of course, Mr. Russell's sensationalism is a very new variety of that old philosophy, but I think it is sufficiently like the classic type to make the application of the label legitimate. Again and again the positions he takes up, and almost the very words in which he states them, recall to us irresistibly similar doctrines in Hume, or in Mill, or in Spinoza. Hume, indeed, is definitely quoted on more than one occasion. And no one can help feeling that the whole temper of the work carries on the naturalist tradition. The latter part of the book, indeed, deals with questions which are already classic in the history of discussion. One might almost say that here Mr. Russell abandons the detached position which he has previously occupied with regard to these historic controversies, looking on both sides as being equally victims of some misapprehension. In the old dispute between naturalism and idealism, he is now definitely on one side. (This ought, by the way, to be a very welcome event to those idealists who always felt that the new realism, since it was anti-idealist, *must* be only naturalism in a new guise.)

No apology, I think, is necessary for thus treating the present work as a document in the history of philosophy. It is not only that what Mr. Russell thinks to-day a good many people are apt to think to-morrow (although they may find that by that time Mr. Russell is no longer in agreement with them); it is still more that the support of one with Mr. Russell's traditions was exactly what the new naturalism stood most in need of. For such a theory has always found some followers, and a large section of psychologists have always tended towards it along their own lines. But since the success of the neo-Kantian attack on empiricism, it has been generally held among philosophers that whatever partial truth naturalism might contain as a method of psychology, its inadequacy was exposed as soon as it attempted a logic or a theory of knowledge. Now it is precisely in the region of logic and of theory of knowledge that most of Mr. Russell's work has hitherto been done. This new alliance, then, seems to me a philosophical event of first-rate importance.

It is natural to ask, as Mr. Joachim has already done, how far

the new theory can escape objections such as Green and Bradley directed against the older sensationalism. One must recognise however that Mr. Russell's position is considerably more subtle than Hume's. In Hume impressions and ideas are somehow conscious states. For Mr. Russell a sensation is a particular which is in no sense mental; it is a thing which may enter into consciousness, but it has no essential connexion with mind.[1] But on the other hand Mr. Russell's position is more subtle than that of the American new realists. He recognises that the consciousness of a sensation must be something much more than the occurrence of that sensation. Consciousness must be *of* something; there must be some sort of duality or complexity in any conscious event. Nor is it enough that there should be a sensation and an image; there must be a belief-feeling as well. Still further, says Mr. Russell (and the point, if not the words in which it is expressed, might almost be taken from some neo-Kantian criticism of associationism), "it is not enough that the content and the belief-feeling should co-exist; it is necessary that there should be a specific relation between them, of the sort expressed by saying that the content is what is believed".

The theory then cannot be accused of too great naïveté; Mr. Russell is perfectly aware that what seems the fundamental fact of consciousness—that someone is conscious *of* something—has got to be satisfactorily explained. The question is whether he has succeeded in showing how, by adding together particulars which are themselves only objects, we can reach the kind of complex which *seems* to consist in a subject knowing an object.

Now a large number of people, at any rate, when confronted with a theory such as the present one which appears to succeed in "constructing" the subject in this way, have an uneasy feeling that there must be a trick somewhere—that the conclusion seems plausible only because a subject has been introduced surreptitiously in the course of the construction. This feeling may really be a sign that there is something wrong, since it is certain that our first perception of a flaw in an argument is often a vague discontent of

[1] This being so, would it not have been better to discard the word "sensation" altogether? Among the many meanings which that word has had in philosophical discussions, it has always at least meant something more or less connected with consciousness. Mr. Russell would, I suppose, reply that the thing which he calls a sensation is the same thing that most people call a sensation, only those people are in error when they suppose that the thing in question has anything mental about it; therefore he has a perfect right to retain the word while freeing it from its false associations. But I do not think this would be a sufficient answer. For people, when they call a thing a sensation, mean to imply that it is mental; and if they were convinced that they were mistaken in supposing it to be mental, they would probably say, not "Well, you have now convinced me that sensations are not mental," but "I now see that what I thought to be mental is really not so, and I was therefore mistaken in calling it a sensation".

this kind; it may on the other hand be founded on a mere prejudice, and in that case we must attempt to overcome it if analysis discovers no justification for it; but in either case it is relevant to register its presence.

My own opinion is that the subject really is introduced in Mr. Russell's account of knowledge, and that this is done under cover of what he calls the "belief-feeling". The "belief-feeling" is of capital importance in his analysis; without its presence there can be no knowledge and no consciousness. It is strange then that anything which plays so large a part in the theory should receive such a small share of the limelight. And yet such is the case. All Mr. Russell tells us is that there are at least three kinds of belief, memory, expectation and assent, and that each of these is "presumably a complex sensation demanding analysis". Sometimes, as in this passage, he calls belief a sensation, but more often he calls it a feeling; in any case he does not, he says, profess to be able to analyse it. But short of analysing it, what justification is there for calling it a sensation or a feeling and thus getting it to fit into the general formula? If we are to talk of a sensation of belief, surely we must recognise that we are dealing with something very different from a sensation of blue; for the essential characteristic of belief is that it is directed towards something, and it is only by the possession of this characteristic, which no other sensation appears to have, that it is capable of playing in knowledge the part it does play. I do not see how we can be satisfied with the statement that mind can be analysed exhaustively into sensations and images until it has been made much clearer that belief really is merely a sensation. Nor is the case better if it is spoken of as a feeling. The only analysis Mr. Russell gives us of feelings occurs in chapter iv., and there as we have seen he distinguishes three possible theories as to their nature. The last of these—that a feeling consists only in causal properties—he definitely rejects in the case of belief; so we are shut up to the other two, and of those Mr. Russell is bound to choose the second, that feelings are intrinsic qualities of mental occurrences. Now is it plausible to say that belief is simply a quality of some sensation or image, and if so of which sensation or image in the belief-complex is it a quality? Not, clearly, of any one of the images of the *content*, for the belief is directed towards the whole content. Are we to say, then, that it is a "quality" of some organic sensation, which forms a part of the belief-complex (though not of the content believed)? If so, is it at all intelligible how an organic sensation can have a quality which has the peculiar characteristic of being directed towards something? Mr. Russell's whole treatment of feeling is, however, inadequate; the above threefold division of theories is put forward originally as applying only to pleasure and discomfort, but later on in the book we are referred to this chapter for the analysis of feeling. And in the end, Mr. Russell wavers between calling belief a feeling and calling it a

sensation. For my part, until the "belief-feeling" has been completely analysed and turned inside-out, I shall continue to believe that within it is concealed something which is neither a sensation nor an image—something which, if it were let out of the bag, would upset the whole construction.

One of the classical objections to the older sensationalism was that it led inevitably to scepticism. This result followed, it was held, chiefly because sensationalism, starting with nothing but particulars, could never reach a universal proposition by any valid process of inference. As regards this point, Mr. Russell's position is rather peculiar. "I *think*," he says on page 228, "a logical argument could be produced to show that universals are part of the structure of the world, but they are an inferred part, not a part of our data." And his whole way of speaking in that chapter emphasises the view that the way in which we know universals is even more indirect than the way in which we know other things. When we are "thinking of a universal" the content of consciousness is always a particular. Of course there is always, on Mr. Russell's view, "an awkward gulf" between content and object "which raises difficulties for the theory of knowledge" (at least he says this in the case of memory); but the gulf would seem to be greater than usual in the case of universals, for in their case the element in the content which "means" the universal is never itself a universal. "A universal," he says, "never appears before the mind as a single object in the sort of way in which something perceived appears" (p. 228). (It is true that this statement is somewhat difficult to reconcile with the statement on page 274, where speaking of an image-proposition about the position of a door and a window, he says "In the case we have just been considering the objective consists of two parts with a certain relation (that of left-to-right), and the proposition consists of images of these parts with the very same relation". I do not know whether this is to be taken as implying that there are some universals which *can* appear before the mind as single objects; or that the relation in this case is not a universal, but only an instance of a universal. However that may be, the view that only particulars can appear before the mind is the one emphasised in most passages in the book.) Now, if this is so, it surely does raise serious difficulties, not indeed as to the possibility of there being true beliefs, but certainly as to the possibility of there being reasoned beliefs. The fact that one proposition implies another can never, on this view, be directly perceived; it can only be known in a roundabout manner. I need not labour the point about the difficulties this raises as to the possibility of valid inference; and I do not suppose for a moment that Mr. Russell is not very much alive to it. But certainly he does little to remove our difficulties. There are a few sentences on pages 228-229, outlining the way in which the logician deals with words which stand for universals, but they are clearly not intended to do more than glance at the subject. There is also, in the lecture

on Truth and Falsehood, a section devoted to verifiability; but the difficulties there discussed are such as arise on any theory of knowledge, whether it admits some sort of immediate awareness or not. Mr. Russell has scarcely touched, in fact, on the more special difficulties which beset the sensationalist theory of knowledge; and since (as I have already said) it was just on this very point that his aid would have been particularly valuable, one feels a certain degree of disappointment that he has not here gone more fully into the matter.

As I have already mentioned, this whole work is an application of that "scientific method" which Mr. Russell first outlined for us in his Lowell Lectures. He does not indeed state this fact so explicitly as in the earlier book; but the nature of the method is made clear enough at particular points in the discussion. At such points it appears how vital for the establishment of his conclusions the adoption of this method is. It may, therefore, be not irrelevant to mention a few objections to which the method appears to me to be open.

Its most characteristic device and the one which the author finds most useful for his purpose is that which we have already seen employed in the case of feeling, *viz.*, the definition of a thing in terms of its properties. By this method we are able, when the existence of anything is at all doubtful, to "avoid the assumption" of its existence and yet proceed successfully with our construction. And Mr. Russell has left the path along which he proceeds to his goal haunted by the ghosts of such possible existences.

Now if it should be the case—and it is admitted that it may be the case—that these things, whose existence we have refrained from asserting, actually do exist, then our final account of reality will be an incomplete one. It will not, so far as it goes, be false; it will be an accurate account of the nature and connexions of things *other than* the things in question; but incomplete it certainly will be. Now it may be argued that it is better to assert only what we are sure of than to strive after completeness (which is in any case unattainable) by asserting what is doubtful. And no doubt this statement is an unimpeachable one as it stands. But it assumes—and the assumption is an important one—that we can divide all the things of whose reality there is question into two classes, the undoubted and the doubtful; and that having done this, we ought then to define the latter in terms of the former, and so refrain from asserting their existence. Mr. Russell seems to work on this assumption throughout the present book; a fact which I find the more surprising because in his Lowell Lectures he clearly recognises that only a vague distinction can be made between the undoubted and the doubtful.

Now suppose there is no clear division between the two classes, are we, in order to avoid the risk of error, to reduce to the lowest possible limits the number of things whose existence we assert? It is always in our power to do this, for the method is capable of

quite general application; we can take any kind of entity and define it as the class of its properties. Mr. Russell does not himself reduce his assertions to the minimum number; for he asserts the existence of images, although it is possible to get on without this assertion.[1] He does this, of course, because images seem to him to belong to the class of undoubted things. But in face of the fact that Prof. Watson and a number of his followers deny the existence of images, it is surely very questionable whether we can place them straight off in the undoubted class. And just as Mr. Russell finds the class of undoubted things to be a larger class than does Prof. Watson, so there are others who find it to be a larger class than does Mr. Russell; there are, for instance, people who believe that they are immediately aware of the existence of the subject. It would appear then that the line between undoubted and doubtful is not easy to draw; and so the question suggested a few lines above "Are we to reduce to the lowest possible limits the number of things whose existence we assert?" demands an answer.

For my own part, I believe that this question ought to be answered in the negative, and that if we are to employ the scientific method, we shall have to supplement it by the use of other principles as well. The question of whether we are to include, in our account of the contents of reality, such things as physical objects, or feelings, or selves will have to be determined by balancing a number of considerations; we shall be influenced on the one hand by the desire not to assert the existence of anything whose existence is extremely doubtful, on the other hand by the desire not to make our account incomplete by omitting anything whose existence is probable. The determination of the degree of probability of the existence of any particular thing will itself of course be a complicated matter and will depend on a number of different factors. I do not profess to be able to say to what sort of system of reality the application of such a method would lead us; and even to touch on the matter would lead me too far from Mr. Russell's book. But I may illustrate my meaning by a reference to one point which is of cardinal importance in Mr. Russell's theory—the question of the existence of the subject.

Mr. Russell repeats on this point the arguments of Hume and of James—he has looked for the subject and found nothing but

[1] It seems a little difficult to understand why Mr. Russell does not apply his method to the belief-feeling. He says on page 247: "Now, it seems clear that, since believing and considering have different effects if one produces bodily movements while the other does not, there must be some intrinsic difference between believing and considering; for if they were precisely similar, their effects also would be precisely similar". But in what does this case differ from that of discomfort, which was defined in terms of causal properties? It is true that Mr. Russell gives other arguments for holding that belief differs intrinsically from consideration; but the above argument is presented as valid by itself.

objects. Dr. Schiller has already replied that he has looked for it in the wrong place; but Dr. Schiller and Mr. Russell start from such different points of view that to contrast their positions on any point of detail does not, perhaps, help us very much. There is, however, another philosopher whose position is not so far removed from Mr. Russell's, who holds that we have some sort of immediate consciousness of the subject; I mean Prof. Alexander. Now for Prof. Alexander, of course, the consciousness we have of the subject is of a different kind from the consciousness of objects; and doubtless Mr. Russell would reply to him as he has done to Dr. Schiller, that he recognises only one way of acquiring knowledge, and that is by observation; the subject can either be observed or it cannot. But is this not after all to make an assumption?—the assumption that all things that are known are known, as it were, on the same plane. Now whether or not we consider the notion of "enjoyment" a satisfactory one, it is surely at least *possible* that the above assumption is false and that there may be different ways of knowing things. And if this be granted, then to begin one's enquiry by refusing to look for reality except by "contemplation" is to cut oneself off, at the very start, from a possible source of knowledge.

The fact then that we cannot observe the subject as we do a sensation ought not to be used in order to rule out at once the assertions of all those who contend that they have some sort of immediate consciousness of a subject. There is *some* evidence then for the existence of the subject; and once this is admitted, then surely the fact that the assumption of the subject enables us to avoid many difficulties in the theory of knowledge becomes relevant; it is one thing to bring in an entity *merely* in order to simplify theory of knowledge, it is another thing to do so when there is already some independent evidence for the existence of such an entity. Even if, then, it is theoretically possible to get on without asserting the existence of the subject, it may very well be that we ought none the less to assert it. We shall have to weigh the risk of asserting more than we have conclusive evidence for against the risk of making our account of reality less complete than it need be by the omission of a thing for whose existence there is some evidence.

It would be indefensible, at this time of day, to occupy space in MIND by enlarging on the proposition that what Mr. Russell writes is worth reading. This must be my excuse for having devoted the present review to criticism rather than to appreciation of his latest brilliant contribution to philosophy. In most of what I have said, my complaint has been that he has scarcely allowed himself room, in the work before us, to give to a number of obscure questions the fulness of treatment which they demand. Let us hope that Mr. Russell will shortly indulge himself—and us—to the extent of a volume more on the scale of *The Principles of Mathematics.*

ALAN DORWARD.

VII.—NEW BOOKS.

Studies in Human Nature. By J. B. BAILLIE. London: G. Bell & Sons, Ltd., 1921. Pp. xii, 296. 15s.

PROF. BAILLIE'S object in this important and welcome collection of essays is to study certain characters of human nature for their own sakes, and without the bias which interest in a particular theory might give. But his choice of topics was directed by an interest in the question of the limitations of the intellectualistic attitude which many philosophers adopt. What does an unbiassed examination of the facts of human nature tell us of the function of thought in human life, of its relation to the other human activities, and of the nature of its object? Setting out with such a problem, Prof. Baillie would naturally be led to a series of studies such as those in the present volume.

His answer is on the whole disintegrating; though the chapter on "Philosophy in Human Nature" shows that, for the author, philosophy has an extremely important function. The postulate that the world is rational is not borne out either by the success of any single philosopher, or by common agreement among philosophers, or by a steady development within philosophy itself. The implication that rationality is the most important and desirable phase of human nature is contradicted by the facts of human nature. "Human life is not a scientific enterprise, nor the universe a mere riddle for philosophers" (11). The rationalistic attitude toward the universe characterises only a small number of men, restricted within narrow limits of space and time, having their habitat just like certain types of fish or tree.

This view is confirmed by an examination of thought itself, of the language and concepts which are thought's instrument, and of the non-logical factors by which thought is guided and sustained. Thinking is a human process, just like seeing; and just as seeing is conditioned by the nature of our eyes, so thinking is conditioned by the nature of our intellect. Our intellect shows itself in the kind of language, the sort of concepts, we construct for the systematisation of reality; and if our intellect were different, our constructions would be different. In this result Prof. Baillie seems to be perfectly consistent. The argument that awareness which involves the human organism is conditioned by that organism, while denied by some, is often accepted as self-evident. It appears to us to be a very complex question, involving many considerations. But if it is to be accepted anywhere, then consistency seems to involve that we should accept it in relation to thought. Prof. Baillie remarks that the processes leading to error are not in any way different from those leading to truth, and that hence the results cannot differ in kind in the two cases. As a consequence, reality is regarded everywhere as intimately bound up with man's activities. There is no reality external to man for man to know; and thus knowing is not an attempt to get into touch with the nature of something whose nature is independent of man. Knowing becomes an attempt on the part of man to find satisfaction through the activity of one aspect of himself. Truth is anthropomorphic.

This is not all. If it were, it could still be maintained that knowing is man's central activity, and that systematic completeness of knowledge is the goal of the process. Prof. Baillie denies this. Knowing is conditioned by certain non-logical factors—emotion, memory, and imagination are the chief—which restrict its activities and determine its essential function. Whether the intellect shall be active or not, in what directions it shall work, how far its activities shall go, depend on the emotional response to the environment, on the accuracy and width of memory, on the imaginative penetration, of the searcher; and these things differ with different men. Prof. Baillie would conclude, not that the existence of the search shows that there is an objective independent of man to be aimed at, but rather that the search is relative to the searcher. His courageous working out of this position is extremely valuable as pointing a fruitful direction for those who regard knowing as a good in itself, but who have felt disheartened by the apparent inability of knowing to achieve a systematic view of the universe.

Even the logical factors involved in knowing—and for these Prof. Baillie simply refers us to "current logic"—differ in different men. Men differ in their sense of what is clear or self-evident, consistent or inconsistent; in the reach, complexity, subtlety and precision, of their intellects; and thus it would be absurd to expect any measure of agreement in the ultimate intellectual attitude of different men. (The difficulty here is to see how to understand the "logical" factors. If Prof. Baillie's view is correct, then a radically different view of the logical factors from that of the current logic seems necessitated.) The way of intellect is simply one of the ways in which man seeks self-satisfaction; and it is to be considered as parallel in its nature to art and morality. They and it react on one another, and are to be regarded as organically related parts of man's whole nature, which seeks, not the self-completeness of any aspect, but growth through complete activity.

This general attitude (expressed in Essays I., III., VI., VII., VIII.) is confirmed in detail by the accounts of perception, judgment and inference (in the second essay), of memory (in Essay IV.) and of emotion (Essay V.): where it is contended that each aspect of the self makes its own unique and distinctive contribution to knowledge, which cannot be set aside in the interests of the contribution of any other aspect, and that hence the ideal of systematic completeness cannot be supreme. He speaks occasionally of his view as involving an appeal to intuition, but intuition means more than the simple fact that each aspect of the self stands on its own feet and claims ultimacy within its own sphere. Intuition is bound up with feeling. He speaks (82) of the emotional thrill with which man responds to selected parts of his environment as "one of the most mysterious manifestations of mental life," and (61) of the full joy, the complete sense of fulfilment, which successful thinking brings; and it is in the light of such statements that we should read the brief account of intuition on page 74, as the final operation of the mind in knowing, "inseparable from feeling and carrying the sense of completed mental activity or free self-fulfilment". It is this state of mind which is the goal of knowledge, and not "a system of thoughts outside the mind".

This whole view, dealing as it does with the most important of all the philosophical problems of to-day, is expounded with remarkable lucidity and vigour. The account of certain non-logical factors in knowledge is the most careful and balanced statement we have yet seen on this subject. There is an illuminating final essay on "Laughter and Tears" which treats the subject of laughter in close relation with its opposite.

A companion series of studies, dealing with morality and citizenship,

is foreshadowed in the preface. Readers of the present volume will look forward to its companion with great interest.

LEONARD RUSSELL.

The Moral and Social Significance of the Conception of Personality. By the late ARTHUR GEORGE HEATH, M.A., sometime Fellow of New College, Oxford, and Lieutenant in the 6th Batt. Royal West Kent Regiment. Oxford: at the Clarendon Press, 1921. Pp. viii, 159. Price 7s. 6d.

All who have read the *Letters* of Arthur George Heath, and the brief but fitting memoir by Prof. Gilbert Murray which prefaced them, must have realised, even if they did not know him in life, that his death on the field of battle robbed Oxford and New College of a singularly fine character and a mind rich in promise of distinction. They will turn with more than ordinary interest to this short essay, which gained the Green Moral Philosophy Prize in 1914, and which has now been given to the world by his friends and literary executors, notwithstanding the fact that Heath himself, before sailing for France, advised against its being published as it stands. The decision to override Heath's own judgment must have been a grave and difficult one, but there is good reason to feel grateful to the editors for their courage. True, the essay, as they recognise, "will not win for its author the reputation as a philosopher which he would have attained if he had lived to complete his life's work" (p. iv), but it helps one to understand the trend of philosophical thought among the younger generation of Oxford teachers, and it shows Heath's freshness and independence in the handling of a well-worn topic.

Oxford, it is clear, is turning away from the idealism of Green and Caird, Bosanquet and Bradley. Even Plato is mentioned only to be criticised. The dominant character of this reaction is, broadly, "realistic". In the theory of knowledge, its leaders insist upon the distinction between the act of knowing and the object known. In political theory, they protest against the "exaltation of the State," against the "social mysticism" which ascribes to the State a consciousness and personality higher than those of its individual citizens, and expresses itself in Hegel's "Es ist der Gang Gottes in der Welt dass der Staat ist". In metaphysics, they reject the absolute, especially when conceived as an infinite person, and construe the universe pluralistically as a society of finite spirits. All these characteristics of a realistic, or at least anti-idealistic, movement of thought are to be found in Heath's essay, though from its predominantly ethical and political interest the emphasis naturally falls on the second point, *viz.*, the comparative analysis of forms of social organisation as making for the more abundant life of individual minds. "We are persons in order that we may become personalities" (p. 4). "The highest goodness of which we can conceive is only possible . . . in the lives of finite persons" (p. 22). "In the world of spirit the differentiation of personality is final and sufficient" (p. 39). "A society of persons knowing the truth, wishing the good, loving one another and enjoying the fullness of their lives—such is the ideal of any unsophisticated mind" (p. 50). Sentences like these recur throughout the essay: they strike its keynote. The following summary, in the author's own words, best gives the total effect: "I wish to establish first that though some moral goodness may be found elsewhere than in persons, its most characteristic forms demand personality: that equally the highest goodness of which we can conceive would be personal goodness: that it would further be the goodness of finite personalities who could in no way be absorbed into one another though

they could, and necessarily would, live in intercourse with each other: but that this society could not be identified with the State, that the attempts to elevate the State into a moral being higher than any finite individual must fail, and that the divergence between personal development and social duty is in some sense a real fact . . ." (pp. 7, 8).

The argument in support of these theses, though rather uneven in quality, improves steadily as the essay proceeds, until it culminates in a really fine and powerful passage in which Heath prophesies that "as civilisation advances the present State must decline, and with it also the economic structure which the State at present partly controls and partly reflects" (p. 150). This decline of "law and politics" is to come about through man's advance in the control of Nature and of himself. The whole thought reminds one of Spinoza's concept of *jus in naturam*, to which, however, Heath does not refer. The State, to him, is not the "supreme form of human organisation" (p. 125), for he restricts the term explicitly to the sphere of power of the "Sovereign Legislature" (*ibid.*). To the State, so conceived, he does indeed concede the very important functions of being, in "the common interest," the ultimate court of control over all other forms of social organisation to which its citizens belong; and of exercising the supreme power of coercion (Part VII.). But he insists that many of the forms of social organisation which the State supervises and controls, *e.g.*, the family, or the church, realise, as measured by the quality of individuals' thoughts, purposes and feelings, higher moral values than does the State. Incidentally, Heath makes some sound remarks on the relation of the economic to other motives in human conduct (Part V., § 2), and shrewdly points out that the socialisation of industry would not abolish conflicts of interests, but only alter the machinery for settling them, by substituting the methods of the council chamber for the methods of the market (Part VI., § 3). No doubt, he would have put this point differently, had "direct action" been within his experience. Throughout he is much concerned to argue that the legal concept of the personality of corporations is a mere fiction, lest it be exploited in favour of a metaphysical personification of the State. Everywhere his principle is that "neither in the State nor in the Church nor any lesser grouping can you find a unit of value higher than the individual personality" (p. 89).

In the section on Self-Realisation (Part III.), Heath argues with much point that this concept is too vague to supply a standard for the development of a man's individuality. So far as it is positive, it calls for breadth rather than depth. But it leaves us helpless in the face of the problem of harmonising, except by unsatisfactory compromises, such conflicting elements of the ideal as action and contemplation, personal enjoyment or self-cultivation and social service. Heath does not appear to have noticed that his point here is fundamentally the same as that which Bradley makes in *Appearance and Reality*, and A. E. Taylor in *The Problem of Conduct*, and that it can be used as a premise for conclusions very different from his own. In general, morever, his preoccupation with the ideal of a perfection realised discretely in as many individuals as possible makes him ignore altogether both vicarious suffering and vicarious achievement. Yet it may fairly be held that no analysis, be it of individual persons, be it of social life, which is blind to these two things, does more than scratch the surface.

But the weakest portions of the essay, to my mind at any rate, are Parts I. and II. The foundation of Heath's whole position is given in this sentence: "it appears to me that we regard nothing as good in itself except states of consciousness" (p. 9). This judgment is nowhere discussed. No grounds are given, no elucidations offered. We must interpret it, I

think, as implying that also nothing is bad in itself except states of consciousness. Yet there is nowhere any attempt at a discussion of what constitutes badness and goodness in states of consciousness. If, *e.g.*, we insist on the distinction between the act of thinking and the object of thought (p. 36), the question at once arises whether goodness and badness belong to the acts by themselves (which alone, presumably, can be described as "states of consciousness"), or whether they depend also on the objects. Moreover, in spite of repeated readings, I cannot make out whether, in Part I., Heath does or does not intend to distinguish between "moral goodness" and other forms of "ultimate value". He begins by distinguishing them and enumerates knowledge of the truth, creation of works of art, and pleasure as non-moral values. But, thereafter, the question of the "goodness" or "value" of states of consciousness is uniformly treated as if it were exclusively the question of their moral goodness. And this question is further complicated by the distinction between beings who are conscious and beings who are self-conscious. Only the latter, aware of an alien world and capable of memory and anticipation, are strictly "persons". Yet persons share with lower animals certain emotions and impulses. And thus the problem is posed whether these emotions and impulses "can have a place in [moral] goodness" (p. 15) when they occur in self-conscious persons and, again, when they occur in unself-conscious animals. The whole discussion seems lacking in clearness and grip. Of Part II., which contains Heath's arguments against *The Idea of Infinite Personality*, it is enough to say (1) that, so far as they are polemical (chiefly against Lotze and Bosanquet) they bring nothing new and leave one wondering whether Heath really understood what those whom he criticises seek to express; and (2), that so far as he insists on the value of finite beings, and even of the imperfections and limitations of finite beings, he says nothing which an absolutist could not accept, or which could not be paralleled, *e.g.*, from Bosanquet's writings. With the question whether a finite creature is merely finite he does not deal. He simply assumes the affirmative.

There is a sentence in the *Conclusion* (p. 156) which makes poignant reading. "The feeling in the minds of many sincere and loyal citizens that their country is greater than themselves has to be set aside as misleading, although it is quite true that the individual may realise the highest within his powers in self-sacrificing devotion". Supposing death were an experience which men could survive and learn from, what should we not give to have Heath's own comments on this judgment now that he has himself made the supreme sacrifice for his country?

R. F. A. H.

Collected Scientific Papers. By JOHN HENRY POYNTING, Sc.D., F.R.S., Mason Professor of Physics in the University of Birmingham. Cambridge: University Press, 1920. Pp. xxxii + 768.

Friends of the late Prof. Poynting—and they are many—will welcome this handsome memorial volume of his scientific papers which has recently been published by the Cambridge Press. It has been edited by two of his junior colleagues, G. A. Shakespear and Guy Barlow; and interesting biographical and critical notices by Sir Oliver Lodge, Sir Joseph Larmor, Sir J. J. Thomson and G. A. Shakespear, have been inserted as an Introduction.

J. H. Poynting was one of the four first professors of the Mason College, Birmingham, opened in 1880 by Huxley (who delivered on the occasion his notable Address on "Science and Culture"). Poynting had been a student at Owen's College, Manchester, and at Trinity College, Cambridge,

and was Third Wrangler in the Mathematical Tripos of 1876. He was elected to a Fellowship at Trinity in 1878, and then began in the Cavendish Laboratory under Clerk Maxwell a series of experiments on the mean density of the earth, which occupied him for some twelve years. When he went to Birmingham in 1880 he had the opportunity of organising a laboratory of his own, and in it one valuable piece of physical research after another was undertaken, until his too early death in 1914, at the age of sixty-two years. As a physicist he is most widely known through his memoirs "On the Transfer of Energy in the Electromagnetic Field" (*Phil. Trans.*, A, 1884), and "On Electric Currents and the Electric and Magnetic Induction in the Surrounding Field" (*Phil. Trans.*, A, 1888), both of them included in the present volume, the former culminating in what Sir Joseph Larmor describes as "the famous result that will go down to posterity as Poynting's Theorem". Not only did he succeed in specifying the path of transfer of electric energy from one material system to another, but he was likewise enabled to give for the first time as a very special case the dynamical specification of a ray of light. For some years before his death he devoted a great deal of attention to the problems of radiation and radiation-pressure, and made important contributions to the experimental side of the subject. In these researches he started with the notion of a beam of light as a carrier of momentum, as bearing with it a forward push ready to be imparted to any surface which it meets.

Of the more technical papers which are here collected, I will only say that many of them give even to an outsider like myself a clearer conception of the directions in which physicists have recently been moving, and of the tremendous revolution in physical theories consequent on the discovery of radium, than can readily be obtained elsewhere. But Prof. Poynting inherited from his father (the author of a book, published in 1860, entitled *Glimpses of the Heaven that Lies About Us*, which in its day occasioned a considerable amount of discussion) an interest in metaphysical inquiry; and in not a few of the essays contained in this volume he is to be found wrestling with the philosophical questions that lie at the basis of physics, as also with those questions of philosophical import with which physics may be said to terminate.

The Address to Section A of the British Association in 1899 (pp. 599-612) is, in more ways than one, anticipatory of Whitehead's Address to the same Section in 1916. Poynting here emphatically maintains that the method of physical science consists in searching for likenesses or similarities, in classing together resembling events, and in thus furnishing a concise account of the motions and changes observed. Physical laws, he urges, are just brief descriptions of observed similarities. And he strongly protests (in a manner that reminds one of Lotze) against phraseology encouraging the anthropomorphic tendency to look upon physical laws as though they were expressions of fixed purpose and the resulting constancy of action as though they were commands analogous to legal enactments. *E.g.*, gases are still said to obey or to disobey Boyle's Law, as if it set forth an ideal or perfect gas for their imitation; and radiators to be good or bad, as if it were a duty on their part to radiate well, and as if there were failures on Nature's part to come up to the proper standard.

Nevertheless, both in this Address and in other papers, Poynting was constrained to admit that a certain amount of anthropomorphism is in science inevitable. The ultimate aim of physical research is, he thought, to describe sense-data in terms of sense-data. But for science at its present stage to be confined to description of this sort would mean that great and innumerable gaps would be left in our knowledge; and,

consequently, the human device of throwing hypothetical bridges across these gaps to connect what would otherwise be detached regions is bound to prevail. A "true physicist," a physicist who was a physicist alone, would, no doubt, be content to describe merely what is observed in the changes of energy, to say, for instance, that so much kinetic energy ceases and that so much light appears, or that so much light comes to a surface and that so much chemical energy takes its place. The human mind, however, abhors discontinuity no less than Nature was once supposed to abhor a vacuum, and accordingly imagines a constitution of matter and modifications of it corresponding to the different kinds of energy, such that the discontinuities vanish, and one form of energy can be pictured as passing into another, while yet remaining the same in kind throughout. Thus, then, deserting the field of perceived fact, the physicist constructs a conception of natural mechanism,—a conception which enables him to explain in terms of motions and accelerations all the various occurrences of Nature. So far, the only foundation which has served him for this mechanical explanation has been the atomic and molecular hypothesis of matter; that is to say, he connects observed conditions and changes in gross visible matter by invisible molecular and ethereal machinery. In other words, "while the building of Nature is growing spontaneously from within, the model of it, which we seek to construct in our descriptive science, can only be constructed by means of scaffolding from without, a scaffolding of hypotheses" (p. 607). Such hypotheses are in terms of ourselves rather than in terms of Nature, they are ejective rather than objective (*e.g.*, the molecular and ethereal machinery has been designed, so Prof. Poynting believed, partly because our most highly developed sense is that of sight); but, still, the circumstance that the form of a hypothesis may change, as our knowledge extends, lessens in no way its present value as an instrument to aid us in the search for truth. We can recognise to the full how adequately the molecular hypothesis, for example, enables us to group together large masses of fact which, without it, would be scattered apart, and continually enables investigators to formulate new questions for research.

Several of the papers in this volume deal with the molecular theory. No more succinct or lucid account of its history has been written than the article on the "Atomic Theory (Mediæval and Modern)," which is here reprinted (pp. 724-741) from Hastings' *Encyclopædia*, an article which is admirably supplemented by the two shorter papers, entitled "Molecules, Atoms and Corpuscles" (pp. 664-672) and "Mysteries of Matter" (pp. 677-681). While consistently maintaining that the theory is only a hypothesis, which it is at least conceivable some other hypothesis may displace, Poynting confessed that it was to him most difficult to suppose even the possibility of giving up the idea of a grained structure of matter whatever may be the nature of the grains. In discussing the latest theory of atomic structure, he expresses doubt as to whether the mass of electrons can be sufficiently accounted for by the magnetic energy of their charges when in motion. Certainly, he argues, all our measurements of energy involve the idea of mass, and he makes the suggestion that perhaps the magnetic energy in the space round the moving electron may imply the existence of mass in that space to serve as a seat for the energy. Were this so, the electric theory of mass would only take the mass from the inside of the moving sphere and spread it through the outside space, so that we should come back again to the Boscovich-Faraday conception that an atom is wherever its force acts—not at the centre alone, but spread out through all space. But, from the point of view of physics, Poynting did not see his way to reduce, as he put it, all to force. "We think of force as effort, symbolised by muscular effort; and if we

have force alone, it is difficult to assign meaning to effort acting on effort" (p. 730).

In the light of these considerations, it is somewhat surprising to find him contending with vehemence that in purely physical inquiries the idea of 'cause' is quite out of place, and that it would be a gain to clear thinking if we could abolish the word from scientific description (p. 602). For, after all, the idea of 'cause' is surely no more anthropomorphic than is, according to his own showing, the idea of force; in point of fact, there is little doubt that the primitive representation of a causal connexion is derived like the idea of force from the initiation of movement by muscular effort. And if the ultimate aim of physical science is to describe sense-data in terms of sense-data, it is hard to see why 'effort' should be deprived of its significance, for it is as distinctively a sense-datum as a colour or a sound.

The essay on "Physical Law and Life" (pp. 686-698) is in many respects a noteworthy production. Prof. Poynting would constitute a sharp antithesis between physical and mental activity and could not see the remotest likelihood of our ever making out any correspondence between the two. In a physical system, quantitative values can be assigned to the different conditions, and the resulting motion can be foretold from their combination. But we have, he insisted, no such method of measuring motives in the mental life. We have absolutely no means of determining which motive is the 'stronger,' and can only assign such strength to that which ultimately prevails. There is, therefore, no kind of analogy in such a procedure to physical measurement. "Every time an intention is formed in the mind and a deliberate choice is made we have an event unlike any previous event. Freedom of will is a simple fact, unlike anything else, inexplicable" (p. 687).

I must not dwell on the acute criticism of Herbert Spencer's views on the foundations of our belief in the indestructibility of matter and the conservation of energy (pp. 588-598), nor on the valuable Address on "The Growth of the Modern Doctrine of Energy" (pp. 565-575). But, in view of the current discussions on relativity, attention ought to be called to the delightful little piece on "Overtaking the Rays of Light" (pp. 552-556), originally published in 1883. Supposing an observer moving from the earth with twice the velocity of light towards Sirius, Prof. Poynting pictures that observer seeing the events of the last ten years, all in the reverse order. The earth will appear to him to go the wrong way round the sun and to rotate the wrong way on its axis; rivers will appear to him steadily to flow up towards their source, showers of rain to start from the earth and rise towards the clouds; old men will seem to be dying into life, walking backwards all their days, growing younger and younger, until at last they are born out of the world as flourishing babies, at the mature age of three score years and ten. Query, will the relat vist maintain that presuming this observer had a fair knowledge of physics and physiology he would yet have no means of ascertaining whether he were moving towards the rays of light or they were moving towards him?

The volume contains a fine portrait of the author and a complete list of his published works.

G. Dawes Hicks.

Psychology and Mystical Experience. By John Howley, M.A., Professor of Philosophy, Galway. London: Kegan, Paul, Trench, Trubner & Co., Ltd. St. Louis M.O.: B. Herder Book Company. 1920. Pp. 275.

There is more in religious experience, according to the writer of this book, than mere psychology is competent to explain; but there is also a residuum

with which it may profitably take to do; and he, as an orthodox Catholic and a psychologist, addresses himself to that. His work falls into two Parts and an Introduction. The Introduction, which is the nucleus out of which, as he tells us, the whole grew, offers a general view of religious experience. Part I. then treats of Conversion, while Part II., going a stage deeper, makes a study especially of mystic experience and is entitled Introversion.

One may gather what has been the generating interest behind the work, readily enough, from the Introduction itself. The Author appears to have gone out to see whether a mystic experience whereof Catholicism might be regarded as the peculiar custodian could be distinguished effectively from the many other things which seem like it but perhaps are not the same. And throughout its whole course, his thought keeps up what might be described as a very able, or at anyrate a very creditable, running fight with divers irregularities in the way of religious experience both within the Church's pale and without. It would even appear at points that it is the Author's opinion that while the "agnostic psychologist," with his merely scientific equipment, may make something of the mysticism of a Molinos or a Madame Guyon, of Quakerism or Christian Science, of Buddhism, Theosophy or what not, he is baffled when confronted by the true mystic experience of Catholicism.

But the Author's acute and learned defence of his views of what constitutes true mystic experience, may probably be found of much more permanent interest than his effort to credit this true mysticism especially to the Catholic Church. It is an important issue intrinsically, which in his hands takes the characteristically ecclesiastical shape of a question as regards the respective merits of two ways of devotion, namely Quietism and the Prayer of Quiet. Presuming that the former is the mother of all disorder, while the latter has the beginnings of true mystic experience in it, he asks what really is the difference of the two. And the answer arrived at in the introductory chapter covers very much of what the Author eventually has to say about true mysticism and false. He finds that in the Prayer of Quiet the mind is in contact with something genuinely "given," while in Quietism it has only worked itself up into a certain state. And the criterion by which he makes the distinction is the presence in the one experience and the absence from the other of a certain degree of attention. The presupposition seems to be that if the soul is dealing with a "given," then that with which it is occupied will not be *merely* given to it but will elicit its attention and activity to some degree. There will be some, however faint, sense of concentrating on it. There will be attention, even if "passive" attention. Where attention is wholly absent [as we should say, where the given is merely given] the experience is a spurious one. This, the Author surmises, is the case with the Quietists. Quietism "would seem to have passivity without attention, to be a rest in self rather than a rest in God" p. 23).

The formula just quoted contains *in nuce* the author's substantial criticism of all the ways of mystic experience which he regards as mistaken, from the Protestant variety of "conversion-phenomena" to the religions of the East. There is an inertia in them. Thus he quotes by way of warning, certain comfortings from Falconi (Letter to a Spiritual Daughter) in the matter of the criteria of a true spirit of devotion.

> "Be careful when doing what I advised you, not to occupy yourself with considering that God is present in your soul and in your heart. For although that is a good thing . . . it would not be to believe it with sufficient simplicity. . . . Neither worry yourself to know whether your prayer goes well or badly. Don't trifle with yourself . . . in thinking whether or no you practise the virtues I have marked for you or other such matters. This would be to occupy your mind with these feeble considerations and break the thread of perfect prayer."

So also Molinos,

"Annihilation to be perfect, should extend to the judgments, actions, inclinations, desires, thoughts, to all the substance of life."

And Malaval,

"We must think of nothing and desire nothing for as long a time as possible."

And again Guyon,

"This divine life becomes natural to the soul. As the soul no longer feels, sees or knows itself, it sees nothing of God, understands nothing, distinguishes nothing. There is no longer love, light, or knowledge."

"Thus," proceeds the Author, commenting on these errors, "a type of contemplation which had so largely contributed to the sanctification of the companions of St. Chantal was perverted into a system of psychic inertia." And having found in mental inertia the root of the evil he proceeds to find here also a characteristic feature of current non-Catholic systems generally. "We have not only our Quietists to-day," he says, "but we have this induced passivity, this psychic kenosis, as part and parcel of processes employed by spiritists, faith healers, Christian Scientists, New Thought folk, indeed of all seekers after the psychic Beyond who are unwilling to be simple, humble, and obedient. They look to find the Beyond and they find themselves, to their own destruction."

A touch of the nastiness of the official ecclesiastic is, we are afraid, inseparable from the tone of this whole book. But it would be a pity to let this or any other adventitious feature conceal from us the importance of the task of distinguishing true and false in just the region where the author is trying to distinguish them. It is fairly plain that there is a good mysticism and a bad, however unlikely it is that any one body of people should have a monopoly of the former. But has our Author got hold of the distinction? It is possible that he has. If so, it is highly unlikely to prove in the end to be a line of distinction between sect and sect of mystics, as he thinks, but simply one between the mysticism which is truly religious and that which is not, a line of distinction falling within all the sects. If this point can be made, then much interest attaches to the author's religious standpoint. All recipes for the treatment of the soul, whether derived via St. Ignatious or via Freud, would appear to be double-edged weapons, capable of the basest uses as well as the best; and the only guarantee against their detrimental use would seem to lie in the circumstance that these powers are recognised as being derived from something which is, in some sense, as our Author insists, beyond psychology. We should at least have the assent of this Author to the view that all psychological medicine must in the last resort be religious; that that which places such instruments as its in the discoverer's hands, must itself powerfully control the discoverer's will, if the discovery is not ultimately to do harm.

J. W. Scott.

The Psychology of Functional Neuroses. By H. L. Hollingworth, Associate Professor of Psychology in Columbia University. New York: D. Appleton & Co., 1920. Pp. xiv + 260. No price given.

This book is based on experience gained by the author at U.S.A. General Hospital No. 30 during the latter part of the war. This hospital was devoted exclusively to persistent psychoneurotic cases, of which about 1200 consecutive examples were closely studied. Prof. Hollingworth is not a medical man and was not concerned with the treatment of patients. His function as Director of the Hospital Psychological Service seems to

have been to organise a systematic study of patients by means of intelligence tests and analogous methods. The large number of cases available for observation has enabled him to collect a mass of statistical material which cannot fail to be of interest and value to students of the subject. Moreover, as he justly observes, the declaration of the armistice about midway in the course of the investigation "constituted, on a wholesale scale entirely unanticipated, a magnificent experiment in psychotherapy. The therapeutic effects of this event were not only observed in the casual way so frequently reported, but quantitative measure was secured of the differential effects in the case of the various diagnostic groups."

It is not possible even to summarise here the statistical results obtained, which occupy some thirty tables in the book, but it is probable that few more comprehensive surveys of the intelligence and mental age of different types of psychoneurotic have been made, if, indeed, the present data have any parallel at all. Of considerable interest also is the chapter devoted to "Irregularity of Profile" in which it is made clear that psychoneurotics give test performances which are clearly distinguishable from those of mentally deficient persons, even although the mean score for a number of tests is the same in each class. Whereas the mentally deficient show low performances all round, the psychoneurotics produce the same mean result by scoring abnormally low in some tests and quite high in others. They show, in fact, a high degree of 'scattering' and the average deviation of their scores from the median is much greater than for mental defectives. In this way it is possible to arrange types of disorder in a series of which each number approximates more closely to all-round mental deficiency type. The order given by Prof. Hollingworth is: Hysteria, Epilepsy, Concussion, Neurasthenia, Psychoneurosis, Constitutional Psychopathy, Mental Deficiency. Provided that we can be quite sure just what we mean by these diagnostic terms it seems as if this method of research might well prove fruitful.

Enough has been said to show that the book contains plenty of facts for the student of functional disorders, and it is necessary to pay some attention to the earlier and more theoretical chapters. These, it must be confessed, are less satisfactory than those just dealt with. Prof. Hollingworth rightly deplores the tendency observable in some quarters to take refuge in technical jargon instead of attempting to give true explanations of phenomena. He deprecates, not wholly unjustly perhaps, the use of such words or phrases as 'symbolism,' 'regression,' 'transfer of libido,' 'siphoning of affects,' etc., and proposes to substitute the concept of 'redintegration'—a term borrowed from Hamilton and slightly modified to suit modern psychological thought. By this term is meant the tendency of a single repeated element of a former complex situation to evoke in a psychoneurotic the whole complex reaction which originally corresponded to that situation; as, for instance, when the banging of a door causes a patient to react in every respect as he did in a battle-situation of which shell and gun explosions were one feature. This mechanism is, he thinks, adequate to bear the whole weight of explanation in the realm of the psychoneuroses, but this optimistic view will scarcely be shared by psychologists in general. To say that a single element *tends* to recall the whole of which it once formed a part and to evoke the corresponding complex reaction is a truism which amounts to no more than a re-statement of the Law of Association; it does not in any way explain why, in substantially identical situations, one man should become paralysed, another mute, a third deaf, and a fourth blind, although it makes it easy to understand why, when partially recovered, each should relapse into his own form of derangement for the same apparently inadequate cause. Apart from these and similar criticisms which seem

fatal to the conception as an explanatory hypothesis, there is nothing to be said against the way in which the idea is worked out, and the chapter on the Levels of Redintegration Response is not uninteresting from the point of view of general psychology.

It is however for the facts rather than for the theories to be found in it that the book will be helpful.

W. WHATELY SMITH.

Military Psychiatry in Peace and War. By C. STANFORD READ, M.D. (Lond.). With two charts. London: Lewis & Co., 1920. Pp. vi, 168.

Of the many psychological books resulting from the War, this is one of the best; for the writer is fully equipped in normal and morbid psychology; he has had charge of neurological wards and has visited all the war mental hospitals in France and Great Britain. The book is at once a contribution to the positive study of insanity and an important commentary on the "psychogenic origin" of the psychoses. "Those who take up an essentially materialistic standpoint see the essential factors in the toxins produced by disease and exhaustion, in the inhalations of noxious gases, in the effects of direct or indirect concussion brought about by high explosives. Others believe that the main bulk of the psychoses are psychogenic in origin and look to mental conflict as the great factor to study. I hold this latter view-point and shall endeavour to show that this is as true in the psychoses of war as it is of peace" (p. 25). Dr. Read first analyses the psychology of the soldier. The chapter is an illuminating practical application of Freudian views. He comments on the confusions due to the failure of the academic alienists of the past to distinguish between the insanities proper and the psycho-neuroses. "Before the Commission which sat to enquire into the recruiting problem, in the evidence given by the military authorities, the opinion was freely expressed that if a man was fit enough to do any form of work in civil life, he was fit to do that work in the army. Never was there a greater fallacy. Large numbers of cases which have been returned from overseas with psychopathic symptoms freely illustrate the falsity of this statement. The mental factor has not had anything like the consideration it should have received" (p. 24). These ideas are applied in detail to leading forms of insanity, for example, dementia præcox, paranoid states, confusional states, manic depressive states, mental deficiency, alcoholic psychoses, epilepsy and epileptic psychoses, psycho-neurotic disorders, malingering, suicide—all as affected by war conditions. The book is well documented from other researches. From every point of view, it deserves to be placed among the best handbooks of psychiatry.

W. L. M.

Psychologie de l'Enfant et Pédagogie Expérimentale. By Dr. ED. CLAPARÈDE, Professor of Geneva University. Eighth edition, with a complementary preface. Geneva: Kundig, 1920. Pp. 1 + 570.

This new edition of Claparède's well-known work on educational psychology contains an introduction of considerable length in which the author endeavours to define clearly his attitude towards his subject. He urges that education must be established upon a scientific basis which takes "knowledge of the child" for a starting-point. Hitherto emphasis has been laid upon the subject taught rather than upon the child to whom it is taught. Thus we discuss whether education should be classical, scientific or vocational, and ignore the most important consideration of all, *i.e.*, that

no scheme of education can succeed which is not adapted to the mental and moral life of the child.

Claparède deals in detail with current objections against "scientific pedagogy":—

1. The "common sense" objection that the power of judging and weighing educational values possessed by the ordinary individual is adequate will not hold good, for on every educational problem that has been proposed "common sense" gives conflicting verdicts.

2. It is true that the best educators are born rather than made; but at the same time the teacher needs exact knowledge of his craft, just as the "born musician" needs a knowledge of technique in music.

3. Some say that "experience is the best and only school". What is really required is a knowledge of the way to profit by experience, and that knowledge demands of the teacher a study of the human material with which he has to deal.

Claparède points out that the demand for the application of experimental psychology to education has come mainly from the teachers themselves, who are of all people the best acquainted with the defects of the present state of affairs.

The book as a whole is by now too well known to need detailed description. It contains a vast mass of material, some of which is perhaps rather uncritically reported, but most of which is interesting. The presentation is clear, and what general discussion is entered upon is for the most part extremely well-conducted. It may safely be said that there is hardly another book which contains so much information of use to the psychologically-minded teacher; and the information given is always expressed in a most attractive and suggestive manner.

F. C. B.

Persönlichkeit und Weltanschauung: psychologische Untersuchungen zu Religion, Kunst und Philosophie. By Richard Müller-Freienfels. Leipzig and Berlin: B. G. Teubner, 1919. Pp. xii, 274.

This work, which the Preface assures us was substantially complete when the War broke out, is a singularly well documented and persuasive plea for what the author calls 'psychological relativism,' meaning thereby what is otherwise known as personalism or humanism. It aims at showing "to an extent not hitherto attempted, that a man's *Weltanschauung* is the necessary result of the psychological endowment his life reveals" (p. 264). It attains its aim by distinguishing a number of psychological types and tendencies, such as men of feeling, action and thought, depressed and exalted, dynamic and static, aggressive and pacific, visualising, audile and motor, concrete and abstract, pluralistic and monistic, types, tracing their manifestations historically in the actual lives and works of artists, philosophers and religious leaders, and concluding with a more detailed study of the personality of Luther, Goethe, Wagner, Dürer, and Kant, and its influence upon their work. The book is well written, and makes out its case. It should prove a valuable corrective of the one-sided, fanatical and exaggerated 'absolutism' that was rampant in the German philosophic world before the War, all the more on account of its conciliatory, and even apologetic, tone. At the same time the author contends that his relativism is *not* scepticism; it merely recognises the facts that truths for man are not absolute, that no single doctrine is valid for literally all and that the various ultimate attitudes towards the world are irrefutable, and appeal variously to different characters, and it leaves open the possibility that the total truth may eventually be composed by collecting together the personal views of all (p. 273). He might well have added two more

points; one that absolute agreement, if it were possible, would yield a world dull and intolerable, like a chorus in which every member sang precisely the same note, the other that the greater the variety of views tolerated, the greater and more certain would be the selection of those that had superior value, either intrinsically or relatively to the personalities to which they appealed.

F. C. S. SCHILLER.

Fugitive Essays. By JOSIAH ROYCE, with an introduction by Dr. J. LOEWENBERG. Harvard University Press, 1920. Pp. 429.

Most of these essays—all, in fact, except the last three of them—were written between 1879 and 1882. As the reader of James's *Letters* will remember, Royce, at this period, was a young man of less than thirty, eagerly sharpening his philosophical spurs, but feeling himself cabined within the immensities of the Pacific coast, and complaining, indeed, that he was 'the solitary philosopher between Behrings' Strait and Tierra del Fuego'. 'The World Spirit,' however, to quote him once more, 'found him at his tasks in a certain place that looks down upon the Bay of San Francisco,' and was so far propitious to him as to see to the publication of most of these essays. Indeed, it found a home for some half a dozen of them locally in *The Californian* and in *The Berkeley Quarterly.*

Neither the editor of these essays (Dr. Loewenberg, of Berkeley, whose piety as a Californian blends with his admiration for Royce's life work and reaches a point not far short of idolatry) nor anyone else would claim that these *Fugitive Essays* attain the level of Royce's mature work. What is claimed for them is that they are valuable in themselves, since Royce 'simply could not be trivial,' and that they show a very interesting and signal continuity in the progress of Royce's philosophy. The editor attempts to demonstrate this continuity in a valuable but slightly ponderous introduction of some forty pages, and he certainly succeeds in giving chapter and verse for his opinions, although he seems, to the present writer, to read somewhat more into his extracts than they can legitimately bear.

Opinions, no doubt, will differ concerning the value of the essays themselves, and some may even think that it is always a sound rule to leave the ephemeral and comparatively immature work of distinguished men in the obscurity which the authors have not seen fit to disturb. On the other hand, Royce was so clearly one of the great leaders in the thought of a continent, and so responsive to the ideas of his time, that the history of his philosophical development has a great deal of significance for the whole story of American philosophy in the generation before the war, and these essays are very welcome on this account. Royce himself wished for no formal biography, apparently because he thought that biographies of the usual kind are only impertinent chronicles of irrelevant accidents. What counted, he thought, was a man's work and a man's mind. But he had a high respect for history, and he would have been the last to belittle any attempt to illustrate the way in which the World Spirit seizes hold of those it has chosen.

JOHN LAIRD.

The Moral and Political Philosophy of John Locke. By STIRLING POWER LAMPRECHT, Ph.D. New York: Columbia University Press, 1918. Pp. viii, 168.

This work comprises three books, which treat respectively of (1) The tradition in moral and political philosophy before the time of Locke; (2)

The moral philosophy of Locke; (3) The social and political philosophy of Locke. In the introductory book Hobbes and Filmer are dealt with at some length, the remaining chapters being devoted to a more general exposition of the current conception of the 'law of nature' and of the views of the seventeenth century Deists in their bearing on ethics. This cannot be regarded as a complete account of the historical setting of this aspect of Locke's Thought, and it is to be regretted that Dr. Lamprecht did not see his way to deal more fully with the theories of Cumberland and the Cambridge Platonists in this country and with Grotius and Puffendorf among continental thinkers, to none of whom is there more than an occasional reference.

The exposition here given of Locke's moral philosophy is the most elaborate attempt which has yet been made to elucidate his thought on this subject. The writer has made a careful study of his text and has done well to supplement the scanty indications of the *Essay* by reference to Locke's minor writings, including his answers to some of his early critics. But while he thus presents us with all the relevant materials, he does not seem to me to be equally successful in his interpretation of them. Locke's ethical theory on the face of it contains elements which are not usually found in combination and are not easily reconciled. Under such circumstances the first business of the historian is to endeavour to ascertain how the different elements were related to each other in his own thought. Only when this has been done can the degree of coherence attained be profitably discussed. We may not be able at the end, in Dr. Lamprecht's words, "to fit all he said into one harmonious whole," but we are not driven to the alternative of supposing that he committed himself to a number of different and inconsistent positions, which he never thought of relating to each other. On the contrary, it seems clear that the different elements of his theory were regarded by him as complementary to each other. Thus, while maintaining that the essential part of morality was demonstrable in a manner analogous to that of mathematics, he held that the abstract cognitions thus obtained possessed in themselves no motive force, and moreover lacked the essential element of obligatoriness until they were brought into relation to the divine will. On the other hand, it was equally vital to his position that the content of the divine will is to this extent ascertainable by the use of reason. I can find no basis whatever for the suggestion that moral distinctions were at times regarded by him as the products of arbitrary will, or for the view that the nature of virtue was sometimes thought to be determined by the feeling which he took to be the only possible motive for its pursuit. In his account of "the content of Locke's rationalistic ethics," Dr. Lamprecht distinguishes three forms of his theory, according to which morality is based on (1) The consideration of mixed modes; (2) The Law of Nature; (3) The idea of God. But here, again, (1) and (3) were not for Locke alternative theories, but complementary aspects of any complete moral doctrine, while the very conception of a Law of Nature implied for him that it was both ascertainable by reason and an expression of the divine will.

When we pass from Locke's ethics to his social and political philosophy, the materials become of course much more ample. Dr. Lamprecht devotes separate chapters to Locke's conception of the State of Nature, his theory of political society and his views concerning toleration and punishment. Of each of these he gives a clear and adequate account.

J. G.

Received also :—

S. Alexander, *Spinoza and Time*, London, G. Allen & Unwin, Ltd., 1921, pp. 80.

W. Windelband, *An Introduction to Philosophy*, translated by J. McCabe, London, T. Fisher Unwin, Ltd., 1921, pp. 365.

E. Bevan, *Hellenism and Christianity*, London, G. Allen & Unwin, Ltd., 1921, pp. 275.

H. Höffding, *Bemerkungen über den platonischen Dialog Parmenides*, Berlin, L. Simion Nf., 1921, pp. 56.

B. Bosanquet, *The Meeting of Extremes in Contemporary Philosophy*, London, Macmillan & Co., Ltd., 1921, pp. xxviii, 220.

C. A. Strong, *The Wisdom of the Beasts*, London, Constable & Co., Ltd., 1921, pp. ix, 76.

M. De Unamuno, *The Tragic Sense of Life in Men and in Peoples*, trans. by J. E. C. Flitch, London, Macmillan & Co., Ltd., 1921, pp. xxxv, 332.

S. Pagani, *Programma di Bellagio*, Lugano, Casa Editrice del *Coenobium*, 1920, pp. 316.

G. Rensi, *Lineamenti di Filosofia Scettica*, 2nd Edition, revised and enlarged, Bologna, N. Zanichelli, 1921, pp. 442.

C. Guastella, *Le Ragione del Fenomenismo*, Vol. I., Palermo, E. Priulla, 1921, pp. 869.

A. Renda, *La Validità della Religione*, Città di Castello, Casa Editrice Il "Solco," 1921, pp. 271.

E. Meyerson, *De l'Explication dans les Sciences*, 2 vols., Paris, Payot et Cie, 1921, pp. xiv, 338 ; 469.

G. Urbain, *Les Disciplines d'une Science* (Encyclopédie Scientifique), Paris, G. Doin, 1921, pp. 325.

J. Pacotte, *La Physique Théorique Nouvelle*, Paris, Gauthier-Villars et Cie, 1921, pp. vii, 182.

M. Franck, *La Loi de Newton est la Loi Unique*, Paris, Gauthier-Villars et Cie, 1921, pp. 158.

J. Lemaire, *Etude sur la Connaissance sensible des Objets Extérieurs*, Liége, Société Industrielle d'Arts et Métiers, 1921, pp. 57.

The Fourth Dimension Simply Explained, A Collection of Essays, with an Introduction and Notes by H. P. Manning, London, Methuen & Co., Ltd., 1921, pp. 251.

Relativity and Gravitation, edited by J. M. Bird, London, Methuen & Co., Ltd., 1921, pp, xiv, 345.

J. Kremer, *Einstein und die Weltanschauungskrisis*, Graz und Wien, "Styria," 1921, pp. 59.

P. E. More, *The Religion of Plato*, Princeton University Press, 1921, pp. xii, 352.

E. E. Thomas, *Lotze's Theory of Reality*, London, Longmans, Green & Co., 1921, pp. 1, 217.

Histoire de la Nation Française, Tome XII., Histoire des Lettres, Vol. I., par J. Bédier, A. Jeanroy et F. Picavet, Paris, Plon-Nourrit et Cie, 1921, pp. 590.

J. Chevalier, *Descartes* (Les Maîtres de la Pensée Française), Paris, Plon-Nourrit et Cie, 1921, pp. vii, 362.

F. Nicolardot, *Apropos de Bergson*, Paris, J. Vrin, 1921, pp. 174.

E. Bréhier, *Histoire de la Philosophie allemande*, Paris, Payot et Cie, 1921, pp. 160.

E. Ariès, *L'Oeuvre Scientifique de Sadi Carnot*, Paris, Payot et Cie, pp. 160.

F. Fiorentino, *Manuale di Storia della Filosofia*, a Cura di G. Monticelli, 2 vols., Turin, G. B. Paravia & Co., 1921, pp. xv, 318 ; 388.

R. Stölzle, *Darwins Stellung zum Gottesglauben*, Leipzig, F. Meiner, 1922, pp. 34.

O. Kraus, *Franz Brentano, zur Kenntnis seines Lebens und seiner Lehre*, mit Beiträgen von Carl Stumpf und E. Husserl, Munich, O. Beck, 1919, pp. x, 171.

S. Dasgupta, *The Study af Patanjali*, University of Calcutta, 1920, pp. ii, 207.

G. Dandoy, *An Essay on the Doctrine of the Unreality of the World in the Advaita*, Calcutta, A. Rome, 1919, pp. 65.

L. T. Hobhouse, *The Elements of Social Justice*, London, G. Allen & Unwin, Ltd., 1922, pp. 208.

A. C. Pigou, *The Political Economy of War*, London, Macmillan & Co., Ltd., 1921, pp. ix, 251.

R. De la Sizeranne, *Ruskin e la Religione della Bellezza*, trans. by B. Reynaldi, Turin, G. B. Paravia & Co., 1921, pp. viii, 265.

K. Koffka, *Die Grundlagen der Psychischen Entwicklung, eine Einführung in die Kinderpsychologie*, Osterwieck am Harz, A. W. Zickfeldt, 1921, pp. vii, 278.

M. Kaufmann-Halle, *Die Bewusstseins-Vorgänge bei Suggestion und Hypnose*, Halle, C. Marhold, 1921, pp. 36.

S. Naccarati, *The Morphologic Aspect of Intelligence* (Archives of Psychology, No. 45), New York, G. E. Stechert & Co., 1921, pp. 44.

J. H. Leuba, *The Belief in God and Immortality*, 2nd edition, Chicago, Open Court Publishing Co., 1921, pp. xxviii, 333.

W. H. B. Stoddart, *Mind and its Disorders*, 4th edition, London, H. K. Lewis & Co., Ltd., 1921, pp. xiii, 592.

A. Hoch, *Benign Stupors, A Study of a New Manic-Depressive Reaction Type*, Cambridge University Press, 1921, pp. xi, 284.

J. C. Flügel, *The Psycho-Analytic Study of the Family* (International Psycho-Analytical Library, No. 3), London, International Psycho-Analytical Press, 1921, pp. x, 259.

O. Pfister, *Psycho-Analysis in the Service of Education*, London, H. Kimpton, 1922, pp. xii, 176.

C. W. Valentine, *Dreams and the Unconscious, An Introduction to the Study of Psycho-Analysis*, London, Christophers, 1921, pp. 144.

H. Crichton Miller, *The New Psychology and the Teacher*, London, Jarrolds Ltd., pp. 232.

G. Compayré, *L'Adolescenza : Studi di Psicologia e Pedagogia*, Turin, G. B. Paravia & Co., 1921, pp. xii, 125.

G. Capponi, *Pensieri sulla Educazione*, Turin, G. B. Paravia & Co., 1920, pp. 114.

R. S. Woodworth, *Psychology: A Study of Mental Life*, New York, H. Holt & Co., 1921, pp. x, 580.

S. S. Brierley, *An Introduction to Psychology*, London, Methuen & Co., Ltd., 1921, pp. vii, 152.

M. Ginsberg, *The Psychology of Society*, London, Methuen & Co. Ltd., 1921, pp. xvi, 174.

T. W. Mitchell, *The Psychology of Medicine*, London, Methuen & Co. Ltd., 1921, pp. vii, 187.

R. H. Hingley, *Psycho-Analysis*, London, Methuen & Co. Ltd., 1921, pp. vii, 190.

I. G. Briggs, *Epilepsy, Hysteria, and Neurasthenia*, London, Methuen & Co. Ltd., 1921, pp. xi, 149.

VIII.—PHILOSOPHICAL PERIODICALS.

British Journal of Psychology. Vol. x., Part 4, July, 1920. **S. Wyatt** and **H. C. Weston** contribute a paper on 'A Performance Test under Industrial Conditions'. [A report to the Fatigue Research Board.] The test, applied to a group of cotton operatives, was made to resemble closely the operations involved in bobbin-winding and was continued for four weeks. The results gained bear chiefly upon the method and value of such investigations. The authors concluded that the time required to perform a given task is the resultant of many factors besides fatigue, and the effects of fatigue may be considerably reduced or even entirely hidden by the effects of these other influences. Fatigue can only be clearly indicated when it has developed to such an extent as to become the dominant factor in the complex situation. Even though the operations involved in the test are similar to those which the winders are in the habit of performing in the course of the ordinary winding operations, about three weeks must elapse before the winders become adapted to the test conditions. The effects of practice are distinctly noticeable throughout the test period, and the least variation from the usual conditions of labour has a disturbing effect upon the results. Great individual differences appear even among four workers tested. The results appear to become more uniform and similar as the test progresses, but the afternoon results seem to be more irregular than those of the morning. Thus individual differences decrease as the result of practice, but the day's work has a variable effect upon different individuals. As a means of indicating the amount of fatigue produced in any individual by the industrial conditions under consideration, the test is useless. The following variable disturbing factors became evident; (*a*) variations in illumination at the time of the test, which may more than neutralise the indications of fatigue; (*b*) variations in humidity and temperature and air movements; (*c*) variations in the mood of the individual: disturbing thoughts, of worries or of pleasure, may hinder work; (*d*) nervousness in an operative caused by presence of an investigator. **B. Muscio** in 'Fluctuations in Mental Efficiency,' [another report to the Industrial Fatigue Research Board], concludes, as the result of experiments on medical and other students, that the capacity to perform various mental tests (involving a continuous demand on voluntary attention) may vary in any given individual at different times independently of his working or resting, and that these variations are probably different for different capacities, suggesting varying organic rhythms. At the same time it seemed evident that academic study did lower the capacity for interpolated tests involving continuous attention, such as the crossing out of certain selected figures in a page of figures, each in a special way. The other papers in the number, which are short, are as follows: **J. E. Turner**, 'Note on Professor J. Laird's Treatment of Sense Presentations'; **J. Laird**, 'Reply to Mr. J. E. Turner's Note'; **William Platt**, 'Two Examples of Child-Music'; **Ernest W. Braendle**, 'A Voice Reaction Key' (with One Diagram); **William**

McClelland, 'The Distribution and Reliability of Psychological and Educational Measurements'; **Godfrey H. Thomson,** 'The General Factor Fallacy in Psychology'. Vol. xi., Part 1, October 1920. Five writers contribute a symposium on 'Mind and Medium in Art,' presented at the Congress of Philosophy in Oxford, September, 1920. **Charles Marriott** sets forth the theory that the true criterion of beauty is the appropriate use of the material handled. The artistic creation "must be adapted to the material in which it is represented and to the convenience of the hand in using that material. Thus, we expect a broader treatment of landscape in water-colour than in oils because the, so to speak, 'natural' play of water-colour is in broad washes." For him practical and æsthetic reasons are at bottom the same thing. The writer claims that his view has the advantage that it abolishes all the distinctions between one art and another on the grounds of the representation or non-representation of nature, and also that it abolishes all the artificial and uncertain distinctions between various forms of the same art, such as decorative or pictorial painting, realistic or romantic poetry or drama. The distinction between one art and another lies in the material used—words being the "material" of literature. **A. B. Walkley** criticises this view of art as being an external one, and supports the expressionist theory of Croce, even to the extent that beauty exists to the fullest degree in the mind of the artist before the material object is created. **Henry J. Watt** argues for the essentiality of a basis of sensory beauty in any work of art: he draws upon music for many illustrations and criticises equally the utilitarian tendency of Marriott and the "nerveless abstractions" of Croce, supported by Walkley. **Edward Bullough** emphasises the distinction between art in its static aspect —the objective world of art—and art in its dynamic aspect, *i.e.*, in artistic creation and æsthetic appreciation. The connecting link between the medium (material) and the vision of the artist is technique—the "adaptation of the medium to the vision". The vision must be conceived in terms of the medium, which therefore must profoundly affect the artist; but the farther his artistic imagination breaks away from the tradition of his art and becomes more and more his inner personal creation, the deeper and the more sweeping the changes which the simultaneously growing power of his technical imagination introduces into his handling of the medium. Thus new technical processes, new tools and methods, new ways of achieving effects and new solutions of material difficulties are discovered and minister in their turn to the wealth of his artistic imagination. **C. W. Valentine** emphasises the complexity of æsthetic appreciation. The views of Marriott and Walkley (with Croce) like most theories of the beautiful, err in selecting only one aspect of the beautiful, which is inadequate, though true so far as it goes. Croce underestimates the importance of the direct appeal made to us by such sensory elements as sounds and colours, apart from creative activity in the appreciator. In many cases such stimulus from without is essential, and even the artist often embodies his imaginations in a medium not only to communicate them to others but to make his own æsthetic experience more complete. Five papers on the subject 'Is Thinking Merely the Action of Language Mechanisms' (another symposium at the Oxford Conference) are contributed by **F. C. Bartlett** and **E. M. Smith, Godfrey H. Thomson, T. H. Pear, Arthur Robinson,** and **John B. Watson.** The number also includes the following papers: **J. C. Flügel,** 'On Local Fatigue in the Auditory System'; **Daniel J. Collar,** 'A Statistical Survey of Arithmetical Ability'; **W. T. Waugh,** 'The Causes of the War in Current Tradition'; **Henry J. Watt,** 'A Theory of Binaural Hearing'.

INTERNATIONAL JOURNAL OF ETHICS. Vol. xxxi., No. 1. October, 1920. **M. C. Otto.** 'Morality as Coercion or Persuasion.' [Opposes Prof. McGilvary's conclusion that might makes right, but maintains relativity of morality. Emphasises distinction between persuasion, in which the compelling force is exercised by the ideal itself, and coercion in which it is exercised by something external. The writer concludes that the fundamental problem of morality is to secure the richest total of satisfied desire, and that the application of intelligence by way of adjustment among conflicting ideals promises a better issue than warfare.] **T. H. Proctor.** 'The Motives of the Soldier.' [An estimate of the motives which (1) induced the citizen to become a soldier and (2) sustained him during the protracted war, and of the effects of war on him as an ex-service citizen. States that though English moral standard was exceedingly high few were influenced by it, and that fear was the predominant motive in the majority of cases; in warfare soldier sustained by fear and esprit de corps; as a result of war left infinitely poorer morally and drained emotionally.] **Rupert Clendon Lodge.** 'Plato and the Judge of Conduct.' [Attempts to harmonise views of Cambridge and modern Platonists in the view that everyone philosophises, some more than others, and that "so far as their judgment is philosophical so far is it valuable".] **Ruth M. Gordon.** 'Has Mysticism a Moral Value?' [Emphasises ego-centric attitude of many mystics, and suggests that this deprives mysticism of value through neglect of social nature of morality; admits value for certain individuals provided that it is not complete.] **Henry T. Secrist.** 'Morale and Morals.' [A brief account of morale in the war, and its part in reinforcing morals through enlisting compelling force of morale on side of morals; suggests applications to civic life.] **Eugene W. Lyman.** 'The Ethics of the Wage and Profit System.' [Maintains that under present social conditions the enterpriser is privileged in the economic scheme, below him hierarchy of inequalities of opportunity; if supported by theory of self-interest as only economic motive reinforces anti-social motives; suggests as solution socialising of economic motive and democratising of economic method.] No. 2. January, 1921. **Frank Chapman Sharp.** 'Some Problems of Fair Competition.' [Assuming that fair competition is seeking success by offering better service than competitors, and that this is the best solution of the double problem of producing the maximum desirable of goods and of distributing fairly, discusses *inter alia* problems of boycott, special rebates, tying clauses.] **Victor S. Yarros.** 'Is there a Law of Human Progress?' [Suggests that existence of ideals and of efforts to attain them is evidence of progress, maintains that modern ideals are infinitely higher than those of Greece, and that progress is characteristic of the human will—almost a law.] **J. E. Turner.** 'The Genesis and Differentiation of the Moral Absolute.' [Advances the view that since mind is a whole, discovering ideals, each at first an absolute, all these must be related to each other and to the all-inclusive whole; discusses the error of isolating intellectual, æsthetic and moral ideals, raising the problem as to how the absoluteness of an all-inclusive ethical criterion can be maintained, and suggests that personality as an absolute within the Absolute, in touch with it at all its confines, really constitutes the basal moral criterion.] **I. W. Howerth.** 'The Labour Problem from the Social Standpoint.' [Shows how problem is partially apprehended by Labour, Capital and Consumer; maintains that social well-being gives the only complete view of the problem of supplying economic needs of society with least expenditure of time, means and energy, and that progressive solution is possible by elimination of unnecessary labour through legislation, education and organisation of available

working power thereby making labour attractive.] **J. D. Stoops.** 'The Instinct to Workmanship and the Will to Work.' [Accepts instincts as basis of will energy, will as organisation of instincts, emotions and sentiments; shows the need for organisation of work so as to utilise energy of basic instincts and to develop organised personality; dissociation of will and instincts of workmanship and property involves disorganisation, so that main problem is discovery of inherited capabilities along which fullest development of personality is possible.] **Henry S. Curtis.** 'The Mother's Confessional.' [Justifies sympathetic discussion between mother and children as relieving fears and reducing unhappiness.] **Allan L. Carter.** 'Schiller and Shaftesbury.' [Shows essential similarity derived from Plato in doctrine of harmony as basic principle, and in general attitude to ethical problems, *e.g.*, relation to art, immediacy of moral perception, jural morality, etc.; discusses main divergences.] No. 4. July, 1921. **Victor S. Yarros.** 'Contemporary American Radicalism.' [Upholds Radicalism—the proposing of fundamental far-reaching measures—as inevitable and desirable if the civilisation of America is to be saved and that of Europe cured, particularly with reference to the economic system and political organisation of which the basic ideals are civil individual liberty and equality of economic opportunity.] **Emile Boutroux.** 'The Immediate Future.' [A plea for universal classical education for the development of judgment, of moral consciousness and sense of the ideal, rather than of immediately utilisable capacities, in order to maintain on a footing of equality the rights of nations as moral individuals despite inevitable inequalities in extent and power.] **Henry Nelson Wieman.** 'Personal and Impersonal Groups.' [Criticises Prof. J. E. Boodin's view that small personal groups are the ultimate units of civilisation; maintains dyadic nature of human welfare, the fulfilment of central organised tendencies and of peripheral unrelated tendencies, involving two incommensurable values, the one spiritual the other material; of these the former is increasing in importance but it is necessary to recognise the value of the impersonal.] **Claude C. H. Williamson.** 'Progress.' [Maintains that progress is not a law of human history but is product of persons who will to serve, that there is continuity in the process of change within the whole, revealing a growth in value; emphasises importance of succession of men of genius as condition for continuation of progress, and suggests that Christian view of progress is more in agreement with human nature than pessimism or an optimism regarding progress as automatic.] **John H. Mecklin.** 'The Philosopher as Social Interpreter.' [Holds that American philosophers enjoying the quiet backwaters of philosophic calm are largely responsible for present moral bankruptcy and aimlessness of American life; suggests that they need to live 'in rapport' with their fellows, to cultivate the historical attitude and to study immediately pressing social problems, piecemeal, if necessary, leaving till later the task of synthesis.] **Benjamin Ives Gilman.** 'Death Control.' [Analyses reasons why few can face the problem deliberately and suggests that with spread of belief in Being of universe a rational hastening of death as solution of problem would be viewed in hopeful expectancy.] **E. A. Burtt.** 'Present-day Tendencies in Ethical Theory.' [Treats question as to relativity or absoluteness of moral judgments and standards as outstanding question; if approached from ethical standpoint, relativity appears inevitable, if from universal point of view tendency towards absolutist position, either materialistic or idealistic; alternative, pragmatic standpoint attempting compromise between relativity and universality, with ethical standard a type of continuity inherent in the structure of things.]

REVUE DE PHILOSOPHIE. January-February, 1921. **Th. Mainage.** 'L'Histoire des Religions à l'Institut Catholique de Paris.' [Address delivered at the opening of a new course on the comparative history of religions. The address contains a discussion of the principles of Evolutionism in religion. The thesis maintained is that Evolutionism is false, because there was no evolution in religion. The plan of the new course is mapped out.] **R. Guénon.** 'Le Théosophisme : Histoire d'une pseudo-réligion.' [*Theosophism*, not *theosophy*, the true name for the professions of the 'Theosophical Society'. Details about the origins of the Society given to supplement those in a previous article in this review. They chiefly concern the relations of this with other societies of a more or less occult character.] **P. Vignon.** 'Pour la philosophie des êtres naturels. Interprétation aristotélicienne de l'atomisme contemporain.' (*Conclusion.*) [A rapid and condensed summary of the conclusions reached by the author in the preceding articles.] **G. Voisine.** 'Un nouveau traité de Logique. (*Fin.*)' [M. Goblot (the author reviewed) says (*a*) that all induction is based on our confidence in *determinism*; (*b*) that determinism supposes the constancy and universality of order, without the possibility of exceptions, although the possibility of belief in miracles, etc., shows that determinism is a postulate and not a self-evident principle; (*c*) that, if miracles, free will, etc., are possible, induction is impossible; (*d*) that *finality* does not suppose an intelligence. These positions attacked. In induction we presuppose the existence of *natures* (this idea being formed from experience). The process of induction consists in discovering the laws according to which these natures act. A law is a rule for the activity of a being, and in its metaphysical basis is unchangeable, but it does not apply except under definite circumstances. Miracles, etc., do not affect the law but alter the circumstances. The *natures* have definite tendencies—hence *finality*, which may be conscious (intelligent) or unconscious. The latter presupposes an outside intelligence. Finality, properly understood, does not exist without an intelligence.] **F. Peillaube.** 'Inauguration de deux nouvelles chaires à la Faculté de Philosophie de l'Université libre de Paris.' [Report of the author (Dean of the Faculty) presented at the inauguration of the chairs of *Droit naturel* and *Principes chrétiens du droit des gens*, founded by the 'Fondation des morts de la guerre à l'Université Catholique de Paris'.] **Th. Greenwood.** 'Le Congrès de Philosophie d'Oxford.' [First part of an account of the congress of September, 1920. The author takes the papers and discussions in turn, gives their substance and occasionally adds a short criticism.] March-April, 1921. **R. Guénon.** 'Le Théosophisme : Histoire d'une pseudo-religion (*Suite*).' [The basis of all theosophism is the Mahâtmâs or "masters". For the esoteric section the occult phenomena are also essential. Mme. Blavatsky's influence and power of suggestion described. Her so-called *Esoteric Buddhism* is a medley of misunderstood Neo-platonism, Gnosticism, Jewish Cabala, Hermetism, Occultism, with scraps of Oriental doctrines, all grouped round two or three ideas of modern and purely Western origin. The principal heads of theosophical teaching are: (i) Evolution, fantastically worked out, including (ii) Re-incarnation. (Both ideas, in the author's opinion, of quite modern origin.) (iii) The law of *karma* (= retribution—a mistranslation). Theosophism and similar systems unbalance the mind and are therefore a real danger. Theosophism also discredits Oriental doctrines with Europeans, and the Western intellect with Orientals.] **G. Fournier.** 'L'Influence de Coleridge sur Stuart Mill dans le problème de la Nécessité et de la Liberté.' [J. S. Mill followed Coleridge in rejecting the social theories of Hobbes and Rousseau, and in looking to history for the method of reconciling necessity and liberty. Necessity rules the average, liberty accounts for individual divergences. Mill's

theory expounded.] **A. Diès.** 'Revue Critique d'Histoire de la Philosophie antique.' [Conclusion of an article, of which the last instalment was in April 1913. Short notices of thirty-nine books in various languages, on Plato, Aristotle, and later philosophers.] **F. Monnies.** 'Le Désir du Bonheur et l'Existence de Dieu.' [Discussion of the argument for the existence of God drawn from the desire of happiness. The author gives his version of the argument and then shows the invalidity of two other forms, *viz.*, the argument based on the desire of the *Supreme Good*, and the argument from *Immanence*. His argument is: Happiness is the object of a *natural desire* in man. (Terms defined, and proposition established from experience.) A natural desire cannot be vain. ((i) Established *a priori* from the premiss that everything is capable of explanation, and (ii) confirmed by analogy with natural tendencies in plants and animals—there exists that whereby these tendencies can be satisfied.) For the explanation of this desire a future life and a Benevolent Intelligent Providence are required. The argument does not lead to the existence of God as the Supreme Good.] **Th. Greenwood.** 'Le Congrès d'Oxford (*Suite*).' [In this part the author limits himself usually to a report of the discussions. He ends by remarking an absence of common ground in philosophical discussions, and a connexion between natural sciences and modern philosophy.] May-June, 1921. **P. Doncœur.** 'Le Nominalisme d'Occam : Théories du mouvement, du temps et du lieu.' [The Scholastics held movement to be *transitus a potentia in actum*, a reality which is neither pure act nor pure potency. Occam explains it as "a form acquired part by part and connoting the negation of all parts still to follow". With him it is not a physical reality but a logical concept. He identifies Time with movement, and he identifies Place with the body occupying the place and defining its own bounds 'by not extending its parts further'.] **R. Guénon.** 'Le Théosophisme : Histoire d'une pseudo-religion (*Suite*).' [The history of theosophism traced from the advent to power of Mrs. Besant, through the attempts to educate new "messiahs," and to found propagandist associations such as the 'Order of the Star in the East,' up to the latest connexion between the notorious Mr. Leadbeater and the 'Old Catholic' Bishop A. H. Mathew.] **J. Pacheu.** 'L'École du Cœur.' [The phrase means commonly the practice of spirituality in order to remove disorderly affections. But the heart may be more strictly a school, since love and knowledge of God interact, love giving light and light stimulating love. This seen especially in mystical union, which is wholly one of will, yet thereby the understanding is enlightened beyond its natural powers.] **B. Romeyer.** 'L'Idée de la Vérité dans la Philosophie de S. Augustin.' [Review of a book by Ch. Boyer. Everything exists as either Pure or participated Being. Our mind, since it has to conform to its objects and is therefore inferior to them, can have only participated being. Its objects, in turn, must either be Pure or participated beings. Hence ultimately we are led to God. Knowledge is a participated expression of the Divine Ideas. 'Participation' secures alike against Pantheism and Ontologism. But, do not the Principle of Sufficient Reason, and the *Causa Exemplaris* offer an even more fundamental explanation?] **P. Vignon.** 'La Philosophie de l'Organisme.' [A favourable review of the French translation of H. Driesch's well-known book.] **A. Ancel.** 'L'Influence de la Volonté sur l'Intelligence dans l'Exercice de la Pensée et l'Adhésion au Vrai.' [The will can and must influence the intelligence in assent whenever there is not complete intrinsic evidence. The act is legitimate if confined to compelling assent, not if extended to affecting the nature or firmness of assent.] July-August, 1921. **X. Moisant.** 'La Bienveillance Divine d'après Saint Thomas.' [An exposition of St. Thomas'

teaching on the Benevolentia Dei—the Divine Will loving His Creatures. The author explains the opposition between the Divine Benevolence and the human ideal of a selfless love, of an unlimited and impartial bestowal of benefits. The fact that the Creator is the end of the Creature reconciles all contradictions (*Theocentrism*). On St. Thomas' theory the love of self is not denied, nor judged to be evil (*Ecstatic* theory), but is included in the love of God (*Physical* theory). Man, in seeking good, is seeking God; though the Fall has blinded him to his true end. The author also shows how God's love *surpasses* the human ideal in efficacity, disinterestedness and other qualities.] **R. Guénon.** 'Le Théosophisme (*Suite et fin*).' [The final sections of this account deal with the relations of theosophism with the various branches of what is called 'irregular' Free-Masonry, its widespread auxiliaries among humanitarian, vegetarian, and pacificist societies of all classes, and, in India, its political connexion with British Imperialism.] **Th. Greenwood.** 'La Méthode Pelman.' [Is the undeniable success of Pelmanism due to the intrinsic value of its methods? By a detailed analysis, the writer shows that, while disclaiming any but a practical rôle, Pelmanism is employing time-honoured principles of Aristotelian realist philosophy.] **H. Amiard.** 'Une réfutation du Panthéisme.' [Critique in praise of Father Valensin's article on Pantheism in the *Dictionnaire d'Apologétique*, commending especially his clear exposition of the subject, and the soundness and originality of his method of refutation. For the latter, philosophical Pantheism is distinguished into *Panthéisme savant* and *Panthéisme naïf* according as it has, or has not, taken account of the difficulty of identifying a material finite world with a spiritual infinite God. The *Panthéisme savant* cannot be refuted *a priori* in view of the Incarnation, but it is shown to be unproved, and to be irreconcilable with the *fact* that God and individual men are distinct *responsible* subjects.]

IX.—NOTES.

PROF. BROAD ON THE EXTERNAL WORLD.

MAY I state a difficulty which I find in Prof. Broad's most instructive paper on the External World in the October MIND?

It is, if I understand him rightly, a point which I discussed in my *Logic*, ii., 307. But he does not carry it out to the difficulty which I perhaps wrongly found. The question is whether sensa can be body-dependent in a certain high degree, being partially conditioned by the traces left in the body by past experiences (MIND, pp. 391, 395) without being necessarily mind-dependent also.

My difficulty (*Logic*, *l.c.*) was that a bodily response of this kind, involving the operation of influences from past experiences which are active in present sensation, cannot, so I thought, be got at and exhibited except through the action of an organ of sense, which in practice is necessarily a mental action. I said that if you could get at the response of the eye as modified by the bodily conditions, apart from the visual response, you might find that the mental side of the visual sensation had made no difference to what the bodily conditions gave. But the idea of doing this is surely chimerical. And so, practically, it seems to me, if you let in the bodily traces of past experience as modifying the sensa, you let in all the modification of mental response that has been included under apperception or any such term.

When mere external bodily position is in question (MIND, p. 391) I can see that this does not apply. You can tell, I suppose, how the look of the penny *must* alter as a man first looks at it direct and then steps away to one side. You can separate that bodily effect deductively, so to speak. But the other cases on page 391—must you not take in the mental response to get the result of the bodily conditions?

I have no axe to grind—no subjective idealism to maintain—in this argument. If my thought did create the landscape before my window—a notion to which I can only with the utmost difficulty attach any meaning whatever—still the landscape would be there, and we should have to acknowledge its physical determinations and connexions.

But the point in question did puzzle me, and I should be glad to see it explained.

B. BOSANQUET.

I AM not certain whether I fully understand the point raised by Dr. Bosanquet in his Note on my paper on *The External World*. On referring to the passage (*Logic*, ii., p. 307), which he quotes, I see that he is there arguing against people who hold that, although we perceive external things through the medium of eyes, ears, etc., yet this medium makes no difference to the object perceived. I understand this to be Prof. Alexander's view, but I find it quite as incredible as Dr. Bosanquet himself does, and for much the same reasons.

I take it that Dr. Bosanquet is not raising this point in his Note. I

understand him to mean one or both of the following closely connected things: (i) If bodily traces be part-conditions of our sensa they are no less part-conditions of our sense awareness. Now, if x determines both y and z and always determines both together, you may be able to say that z *does* depend on x, but you have no right to say that z *does not* depend on y. y is an invariable accompaniment of z on the hypothesis that y and z are both invariable accompaniments of x. (*Cf.* Mr. Russell's argument that the parallelist who denies interaction commits an inconsistency.) (ii) After all, the traces are hypothetical; what you can actually observe is the sensa and their qualities and the act of sensing. Hence it is closer to the facts to say that the sensum depends in part on the mental act than to say that it depends in part on the hypothetical bodily trace.

If this be Dr. Bosanquet's contention, I must plead guilty; and I cannot at present offer any satisfactory answer. I purposely omitted the question of the physiological conditions of sensation so far as I could, and no complete answer to Dr. Bosanquet's point could be given till this question has been properly threshed out. At present I find it most puzzling; and I feel that no philosopher, Realist or Idealist, has tackled it satisfactorily. Perhaps I may end by pointing out what seem to me the two chief difficulties: (i) If we treat our bodies as a kind of medium, they are a medium that goes everywhere with us, and therefore we cannot allow for their effects. Thus the supposed sensa in places where there are no living bodies (on such a theory as Russell's, *e.g.*) are as purely hypothetical as the old physical object conceived as a cause of sensations. (ii) Our bodies seem partly to condition the sensa themselves, and partly to condition what goes on in our minds. Can we draw a distinct line anywhere between these two sets of effects? How far does what happens in my body simply determine that I shall sense one rather than another of several coexisting sensa? And how far does it actually determine the properties of sensa themselves? I imagine that these are the kind of questions that Dr. Bosanquet has in mind. If so, I fully admit their importance, and can only say that I wish I knew how to answer them.

C. D. Broad.

DEATH OF M. ÉMILE BOUTROUX.

By the death on 21st November of M. Émile Boutroux at the age of seventy-six the world is deprived of a philosopher of international reputation and of a personality beloved and respected by all who knew him. Émile Boutroux was born at Montrouge (Seine) in 1848, and entered the École Normale Supérieure in 1865. In 1869 he went to Heidelberg, where he worked under Zeller, the first part of whose *History of Greek Philosophy* he translated later into French. Boutroux took his degree at the Sorbonne in 1874, presenting as his thesis a work entitled *De la Contingence des Lois de la Nature*. This work was first published in 1879, when, however, it attracted but little attention. But on its republication in 1895 it was recognised as containing that which had provided the point of departure for the speculation of Bergson and Le Roy, who had been Boutroux's pupils, and it has since gone through a large number of editions, besides being translated into the other principal languages. The volume designated *De l'idée de loi naturelle dans la science et dans la philosophie*, published in 1895, was a continuation of the same theme. Boutroux was the author of many other works dealing especially with the history of philosophy. In 1904 and 1905 he was Gifford Lecturer in

Glasgow, where he lectured in French on *La Nature et l'Esprit*, his first course being on "Nature" and his second on "Spirit". These lectures have never been published; but a portion of the material of them is evidently embodied in the book on *Science et Religion dans la philosophie contemporaine* which appeared in French in 1908, and in English in 1909. As Professor in the University of Paris, a position to which he was appointed in 1888 and which he resigned a few years ago, he exerted considerable influence upon successive generations of students; and as Director (since 1902) of the Fondation Thiers he came into close contact with a large number of younger men who were engaged in original research of a philosophical kind. The death in 1919 of his wife, a sister of Henri Poincaré, was a severe blow to him, but he retained to the end his wonderful vivacity and charm of manner, as also his deep interest in philosophical problems and social affairs. As late as the December of 1914, he visited England to deliver the Hertz lecture at the British Academy on "Certitude and Truth". This lecture was reprinted in 1916 with a number of other essays in a volume entitled *Philosophy and War*—a volume in which there is no bitterness, but in which the hope is repeatedly expressed that the Germany which was respected and admired by the whole world, the Germany of Leibniz and Goethe, may yet some day be reborn.

ERRATUM.

The Editor regrets that, through a mistake for which he alone is to blame, the following corrections need to be made in the last number of MIND and in the Table of Contents of Vol. XXX.:—

P. 498, l. 16 from bottom, for "Rivista di Filosofia Neo-Scolastica" read "Rivista di Filosofia".

P. 499, l. 3, before "Anno xiii." insert "Rivista di Filosofia Neo-Scolastica".

Contents, p. viii, after l. 22 insert—

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and for l. 24 substitute

Rivista di Filosofia Neo-Scolastica (xiii. 2; March-April, 1921) 500

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